# PAGE 6 PUBLISHING's

# NEW ATARI USER

Issue 58 £1.95
October/November

XL/XE

## FOOTBALL CRAZY!

A round-up of *ALL* the football games for the classic Atari




THE COLOURMATCH SQUARE

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### 180

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### SIDEWINDER II

It is 27 years since the final battle of the war with the aliens. 27 years of peace have reigned in the Western Spiral Arm of the Galaxy. All this is about to change. Step aboard your craft and prepare to defend mankind in this all action space blast



### ON CUE

Control that cue ball.! A challenging real life simulation which combines Pool and Snooker on the same cassette. An absolute must for both enthusiasts and beginners alike. Greatly addictive



### GHOSTBUSTERS

Has anybody seen a ghost? Matter of fact yes they have! At this very moment hundreds of ghosts are making their way to the infamous spook central. Only you can save the world from a disaster of biblical proportions. So go and show 'em how you do it!

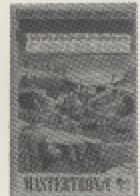


### NINJA

Blasts the belt off all other martial arts games! That's all it says on the inlay! Someone sure reckons this is the best punching, kicking, ducking and diving game around

### ROCKFORD

The only true arcade version of the classic game Boulderdash. There are four levels on each of five different worlds with four screens on each level. It all adds up to eighty totally different playing screens.
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### ROGUE

You are the ROGUE. Your mission is to search the Dungeons of Doom for the Amulet of Yendor. In the dungeons you will find many things to aid the quest for the Amulet. You will also encounter fearsome monsters and fiendish traps that will challenge all your skills



### UNIVERSAL HERO

Only seven seconds left to save the planet! Universal Hero has to save his skin and everybody else's by finding bits to repair a shuttle to get to a planet to pick up the spares to mend a space freighter which is out of control and about to blow him and his chances of getting back to earth to atoms. A nail biting, multi-dimensional, hi-res Arcade Adventure!



### HENRY'S HOUSE

Little Henry has shrunk. He must navigate his way through the royal household to find the cure. Avoiding all the obstacles in his path, from terrible toothbrushes, through pestiferous parrots and chefs chasing chickens, to a final encounter with the vicious vampire! Acknowledged by all reviewers as one of the best Atari games



### BOMB FUSION

A terrorist gang has planted bombs throughout the Sellerscale Nuclear Processing Plant and you, as ex super hero (ex after the 'Boris Affair') have to go in and save the plant and possibly the Northern Hemisphere from destruction



### MILK RACE

Cycling 1,000 miles is no mean feat - and you could end up feeling pretty exhausted by the time you've finished playing this superb race simulation designed especially in conjunction with the Milk Race



### GUN LAW

Four months of bloody alien attacks have taken their toll - all the surviving inhabitants have fled and arson attacks have been made on your weapon stores, they destroyed what you could not carry away. You are left to fight alone against ruthless and bloodthirsty killers with just a single machine gun



### REVENGE II

The Mutated 90 foot high, laser spitting death camels have rebelled against their captors the Zzyaxians and are out for revenge! All action, highly graphical shoot-em-up from Jeff Minter



### DESPATCH RIDER

Join the growing band of street demons - those fearless horders who terrify the population of the big cities to get the parcels through. Plan your moves to make some money, but don't take too long - time is always short. Gain an instant macho rating and be a despatch rider with this all action simulation



### INVASION

Mobilize your units and prepare for battle. This all action space conflict requires skill, strategy and tactics. You must destroy the weather control station in order to win the battle but every move you make the enemy will counter, and they're waiting for you to make just one fatal slip up



### LOS ANGELES SWAT

Special Assignment. Rescue the hostages from the terrorist gangs holding out in West L.A. Clean up the streets. Blow away the bad guys and be a hero on network T.V.! Fail and you won't be coming back to watch it. All action joystick bending combat for those with the skill to survive!



### SPEED ZONE

Enter the Speedzone in a frantic defence against marauding alien forces. A survey ship sent into the area comes under attack. As an enemy vessel draws closer your "STARFIRE" class attack craft is launched



### FEUD

To win at Feud you must "out-spell" your rival Wizard Leanoric. In Kieke's herb garden you will find the ingredients for your spells but tread carefully as strange things can happen in this game of magic and mystery



### PANTHER

Save the last humans on Xenon before the alien hordes turn them into Sunday roast! Take your ground attack ship through this 3D scrolling mega shoot-em-up with great graphics and unbelievable soundtrack

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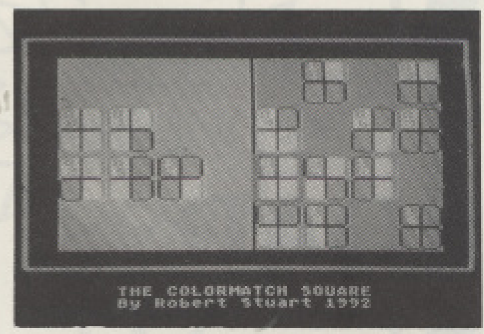
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'The magazine for the Dedicated Atari User'

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Issue 58 - October/November 1992




## THE COLOURMATCH SQUARE

A very nice puzzle to keep your brain alive!

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### SUBMISSIONS

PAGE 6 welcomes and encourages its readers to submit, articles, programs and reviews for publication. Programs must be submitted on disk or cassette, articles should wherever possible be submitted as text files on disk. We seek to encourage your participation and do not have strict rules for submissions. If something interests you, write a program or article and submit it! Appropriate payment will be made for all published programs and articles, all payments being made at the end of the second month shown on the cover of the issue concerned.



The next issue of NEW ATARI USER will be on sale 26th November
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PAGE 6 PUBLISHING's NEW ATARI USER

Issue 58
October/November 1992
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## THE CREDITS

All of the usual stuff is on page 3 but here are the people who made this issue possible.

**Les Ellingham** will shortly be going into a home for the incurably exhausted! It seems that most of the time between this issue and the last has been spent in lugging plasterboard about, building partitions, knocking down walls, fitting carpets and other crazy, exhausting things that have nothing to do with producing a magazine - that had to fitted in during the wee small hours.

**Sandy** was the one who maintained a sense of normality and carried on with all the office work, dealing with orders, paying the bills and answering the phones

**Paulette** displayed many more talents than we thought she had showing a dab hand with the paint brush and volunteering beyond the call of duty - a very sincere thankyou to you, Paulette (we'll hold the photo till the next issue!)

The Regular Contributors, who provide the backbone of the magazine and can generally be relied upon to come up with good articles and reviews, are ....

**John S Davison** | **John Davison jr**
**John Sweeney** | **Paul Rixon**
**Damon Howarth** | **Ian Finlayson**
**Dion Guy** | **The Tipster**

All other contributors for this issue are individually credited alongside their articles or programs. Thanks to everybody for sharing their enthusiasm with other Atari users.

The cover is a depiction of one of the footy games mentioned in this issue and is a welcome change from the screen shots - it would be nice to get dressed up again (remember those covers?) but times change

*This issue the music came from John Prine, John Prine and ... er ... John Prine? I was planning to go to the Cambridge Folk Festival to see the gentleman who is one of the finest singer/songwriters in existence but financial constraints forced us to change our plans so to help cope with the disappointment I invested in The Missing Years which has been on the CD almost non-stop this issue. The only other ones that got a play were Maire Brennan, Jennifer Warnes (both mentioned last time) and Robin Williamson. Remember the ISB competition last issue? Well, it was too easy with no less than two people getting it right! Steve Mitchell will have a CD of his choice by now. This time I was going to drop the competition but I can't resist it as it gives me great joy to know that there are others who share my taste for the sought of music that keeps the spirit alive. This time a CD of choice to the first person to let me know what was John Prine's occupation before recording his debut album and which well known singer is credited as having discovered him in Chicago?*

**The next issue of NEW ATARI USER could feature YOUR article or program, so SEND IT IN NOW!**

*PAGE 6 shows just what you can do with your Atari. NEW ATARI USER has always been created entirely with Atari equipment, initially on the XL but more lately with a Mega ST and other stuff, who needs PC's or Macs! With the exception of the final output on a Linotron and the use of an in-house repro camera for the photos and listings everything is done on the ST. Hardware includes a Mega ST2 (upgraded to 4Mb), SM125 Monitor, Supra 30Mb Hard Disk, an Atari Laser Printer, Citizen 124D printer, Philips CM8833 monitor, 130XE, XF551 disk drive, 810 disk drive, 850 interface, NEC 8023 printer. Principal software used is Protext and Fleet Street Publisher 3.0. Other software includes Kermit, Tari-Talk, Turbo Basic and various custom written programs on the XL/XE. Articles and programs submitted on XL/XE disks are subjected to various custom written programs before being transferred across to the ST via TARITALK. All major editing is done with Protext and pages are laid out with Fleet Street Publisher. A disk with the finished pages as Postscript files is sent to a typesetting bureau to be output on a Linotron and, hey presto, finished pages are sent back exactly as you see them. It really does work! All that is left is to drop in the listings and photos.*
*Well, it's not quite as easy as that but you get the idea!*

# Editorial

# A NEW ROAD

**With this issue of New Atari User we reach a turning point in our long and interesting existence. Various factors such as high interest rates, reluctance of the news trade to support smaller circulation magazines and reducing advertising income mean that *from the next issue New Atari User will become a subscription only magazine.***

**As you know we are the only national magazine in this country (and one of the few worldwide) to support the Atari XL/XE machines and we intend to continue that support for many years to come but, of course, we need your support by subscribing to the one magazine that will support your machine. You might also like to subscribe to keep in touch with an alternative, no-nonsense, view on the ST and for our regular reviews of games for the Lynx. Whichever, your support is vital to ensure that you can continue to read about and learn about your favourite machine.**

**I know times are hard and some of you will find it difficult to find the cost of a subscription but consider the effect of not having New Atari User every couple of months. Not only do you lose all the programs and articles giving life to your machine but you will also lose contact with those companies that are still supporting the Atari. New Atari User is the focal point for support of the Atari Classic machines in this country. If you just dip into your pocket and subscribe to New Atari User now, it will be the best boost for your hobby you can possibly make.**

**I have deliberately kept this editorial short to get the message across as simply as possible. *You will not be able to buy New Atari User from your newsagent in future, you must subscribe.* Of course we have no means of knowing who you are so we cannot give you a reminder later, so turn right now to the subscription form and send it in. If you have enjoyed New Atari User in the past and are enjoying this issue then you will surely want to continue?**

**I look forward to your joining us on a new road, a long and interesting journey lies ahead for all of us who support the best micro ever made - the Atari Classic as they now call the 8-bit in the USA! Join us on the journey.**

*Les Ellingham*

**See subscription form on page 6 or inserted in this issue**

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*You don't have to cut the magazine - photocopy this form, write a letter or just phone your subscription*

# Mailbag

Write to Mailbag, Page 6, P.O. Box 54, Stafford, ST16 1DR

## NO BALL!

**I have a 130XE and have been enjoying your PD game 'Computer Cricket' which is excellent value and absorbing fun. However, I have not been able to either run a series, or create new ratings as I get "Error 144 at line 990". Is it a fault with the disk? I would love to be able to change some of the players to make the game more realistic.**

K. J. Thomas
Isle of Wight

*Whenever we send out a disk we usually put on a write protect tab in case the user has an accident writing to a disk before the program is fully understood. Many games allow you to change various parameters and then write this information back to the disk. If you have a write protect tab on the disk you will get Error 144 and this is probably what is happening. Your best bet is to make a copy of the disk using DOS and then run the game from that disk, making sure that you don't put on a write protect tab. All should be well. Although this is the usual explanation for this error, number 144 can be confusing because it is also used to indicate a bad sector. In some cases you may get this error even if the disk is not write protected and then you can be sure that the disk has a bad sector.*

## SUPPORT

**I am a dedicated Atari user and I have had my Atari for the past four years. Over this time I have seen that software for my Atari has gradually faded from existence. I now have to rely on Page 6's New Atari User magazine to supply me with the only companies that still support the 8-bit computers. I would like to congratulate Steve Wilds who is still supporting the 8-bit as well as Miles Better Software, not forgetting Derek Fern.**

**None of the shops in the Fife area in Scotland will even look at software for the 65XE. If it wasn't for Page 6's support I would have given up hope some time ago. Thank you Page 6 for your support and long may it continue.**

Xander Hutchinson,
Fife

**Let me say how much of a good job you and the team are doing and that I will continue to buy from the Accessory Shop wherever possible so as to provide support.**

**I suppose that now the recession is biting deeper people have less money to spend which is going to affect the type of support that the 8-bit will have. If companies such as Page 6, Miles Better Software, Micro Discount and Robert Stuart are not supported Atari users will lose out.**

**So come on all you Atarians, dig deep into your pockets and buy, buy, buy.**

Richard Eaton,
Redditch

*A nice couple of letters, thank you. The message is clear and we now look to getting your support. Subscribe to New Atari User now and persuade all of your Atari owning friends to do likewise. That's how you can ensure that the support we give continues.*

## OS QUERY

**Various sources (Mapping The Atari, Guide To Error Codes etc.) have stated that bit 6 of location 53775 indicates a serial data overrun which generates error 142 but, whilst disassembling locations 60204 to 60295 I noticed that the OS checks bit 5 of 53775 for serial bus overrun which according to Mapping The Atari signifies keyboard overrun. Is this a bug in the XE OS or are the other sources wrong?**

**I would be grateful if one of your readers could clarify the bit usage of location 53775.**

Chris Roberts,
Prestatyn

*Over to the technical wizards on this one, I think!*

## A NEW MAILBAG?

**Having just received my current edition of New Atari User and read it from cover to cover the thought occurred to me that more use could be made of the Mailbag page in answering queries or for passing on interesting tips and pointers. A feature of the now defunct Atari User was the 'Five Liners' that they used to publish from readers and some of these were really useful. One program that I recall was a five liner program to slow down the scroll on the screen and another was to enable one to underline all the lines on the screen as you typed them in. It was extremely helpful when typing in lines of data. It is this sort of thing that I would like to see more of in the Mailbag column. In this issue there was one letter that occupied nearly two columns in total and whilst in concept it might have interested a few readers I doubt that it was of interest to a great many others and I feel sure that there are many letters worthy of publication that would interest readers more so than that one did.**

**Finally might I just say that I enjoy the magazine immensely and look forward to every issue as it is the only source of information that I have regarding the 8-bit these days.**

**Malcolm J. Tester,**
**Brighton**

*Valid comments indeed Malcolm. I would dearly like to see Mailbag extended to include more specific programming topics but the main problem as things are at the moment is lack of time. Mailbag is one of the most difficult sections of the magazine for the editor requiring a great deal of time at a time when typesetting deadlines are pressing and it is often not possible to research specific queries in sufficient depth. I think that what we need in the future is a Mailbag editor. Someone who is quite knowledgable about the 8-bit and has plenty of reference material and the time, ability and willingness to put together a page or two of questions and answers. Is there someone out there who would like the challenge? You'll have to do it for the love of it (or maybe the fame!) as there's no money to spare to pay another editor but if you love your Atari and like helping people out it could be right up your street. Let me know if you could be the Mailbag editor.*

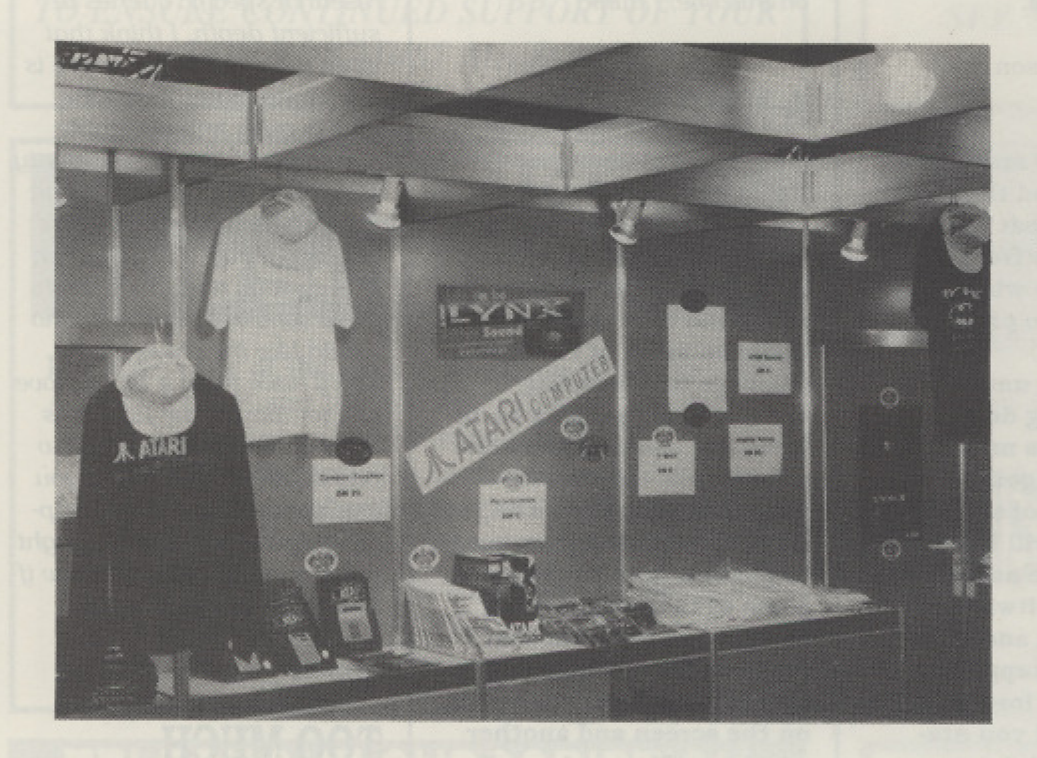
## TOO MUCH

**I have just acquired a 1050 disk drive however I am a complete stranger to the disk scene so could you explain what the following are and recommend a type where possible? DOS, density, double and single sided, CIO and whether Transdisk IV transfers every cassette game to disk or just some. Could you also tell me what enhancements such as US Doubler do?**

Steve Black

*A classic example of the problems of the Mailbag column. Sorry, Steve there just isn't the room to answer as many questions as this in the Mailbag column. A whole article could give you the answers but the information you need has been covered in various issues in the past. I suggest that you get hold of Disk #107 - DOS 2.5 REFERENCE GUIDE from our PD library which will get you a long way towards using your drive fully.*

# DUSSELDORF '92




***Derek Fern reports from Germany's biggest ATARI show where support is running high***

On Saturday 22nd August I visited the ATARI MEESE computer exhibition in Dusseldorf. To get there and back meant driving a total of 840 exhausting miles and spending two nights on a North Sea Ferry. Was it all worth it?

As it turned out this exhibition was without doubt the best organised show I have ever attended, it had literally something for everyone including the often forgotten computer widows, wives and girlfriends. The exhibition hall was located a few kilometres outside Dusseldorf in a very large complex close to the sports stadium similar in style to our own National Exhibition centre here in the Midlands. The complex was well signposted with arrow posters from the main motorway junctions.

Due to the large number of people attending, the car parking areas quickly filled up and when I arrived around 10 am I was directed to a place at least half a mile away, but with true German efficiency free bus transport was waiting to move the crowds quickly to the main Meese reception area. I did not have advance tickets so I had to queue in one of the twelve ticket queues. Three German marks is all it cost, about £1.50. From the time I arrived at the front door to the time I walked into the first exhibition hall was no longer than five minutes. UK organisers should come and take a look to see how it should be done. I have spent many hours waiting in the cold to get into Olympia and Wembley, even with advance tickets.

The Atari show turned out to be only a small part of this all family attraction. I walked through four massive halls full of exhibitors of paintings, sculptures, Swedish designer furniture, glass sculpture, stained windows, pottery and much more. There were also demonstrations of aerobatic dry skiing, judo and trick cycle riding, archery, small bore shooting and a 18 hole putting green!

## THE ATARI HALL

The Atari three day exhibition was contained in two massive halls each twice the size of a football pitch with both halls crammed with enough goodies to make your head spin. At first glance it was immediately obvious that some of the 166 exhibitors had travelled half way around the world to attend this magnificent venue. As I entered the main doorway, the first stand to greet me was Atari Germany, selling many promotional goodies I have never seen in the UK. 'Gobsmacked' is the only way I could describe it! Baseball caps, T-shirts, track suits, wallets, carrying cases and more. The next stand was the Atari spares clearance stand, jam packed with bargains. Monitors, ST's, Mega's, Laser printers, disk drives etc., all sold as seen but at prices that can only be described as a steal!

## 8-BIT SUPPORT

To my complete surprise the next 10 stands covered the Atari 8-bit range. At this stage I had to pinch myself just to make sure that I was not dreaming, but there it was in all its glory! New 8-bit software - no, that's not a misprint - new 8-bit software! The more I say it the better it sounds! One stand was selling the Atari 800XE machines. Before you write in, the model number is correct - 800*XE*. I have never heard of them.

Many of the Atari clubs from Europe had taken stands and had their latest creations on display. I only had to mention that I was a dedicated 8-bit user and I was greeted like a long lost friend. If you mention 8-bit at any of the All Format shows, people walk away with a bemused sickly grin on their face. On these stands I met all those dedicated hard working teams that produce the fantastic demos from Holland, Germany, Belgium and Poland. Names like KE-Soft, ABBUC, Mirage Software, ANG Software, Mega Magazine, Analog Research and TOP magazine.

I counted no less that 32 new game titles. I also saw sample screens of the

yet to be finished disk game BRUNDLES (a Lemmings look-alike for the 8-bit). It has some fantastic graphics screens by Rolf Specht of Analog Research. A great new 1029 printer utility that will allow you to fully use Print Shop with all its icons etc. Three new operating systems, many new disk drives enhancements for both 1050 and 551s, memory expansions ... stereo sound chips. Again a quick pinch to make sure I am not dreaming!

## THE FALCON

The remaining space was occupied by the normal run of the mill ST's, Mega's and, of course, the star of the show, the fabulous Falcon 030. The technical specification was available in German leaflets available at the show and is certainly impressive with all of the areas in which the ST has been developed by users extensively enhanced. Vastly improved graphics, sound, Midi, area networking, PC compatibility are only some of the enhancements. This was, as far as I am aware, the first public showing of the long awaited Falcon, the machine that will spearhead the new Atari range of machines.

Atari had no less than three giant multi-screen and dedicated display areas to demonstrate the power of this machine. The Midi demonstration lasted to 10 minutes and was just awesome. Next on the graphics and game displays, again multi-screen and twenty feet tall, there were brilliant smooth scrolling animated, three-dimensional, solid vector graphic games demos. Other specialised areas, such as desktop publishing, accountancy, video digitising were dealt with on smaller stands. Each stand had plenty of staff and all seemed to be multi-lingual, well trained, knowledgable and capable of answering questions on a one to one basis, even on technical specifications.

Fortunately for my bank manager, no machines were available to take away. Atari says they are very busy with production and expect to get models in store for early October. The UK launch was at the European Trade Show in September.

Initially the Falcon will be available in two configurations, the first with 4 Meg RAM and a 64 Meg hard disk and priced around £800, the second with 1 Meg RAM, floppy drive but no hard disk from around £500. Start saving your pennies now!

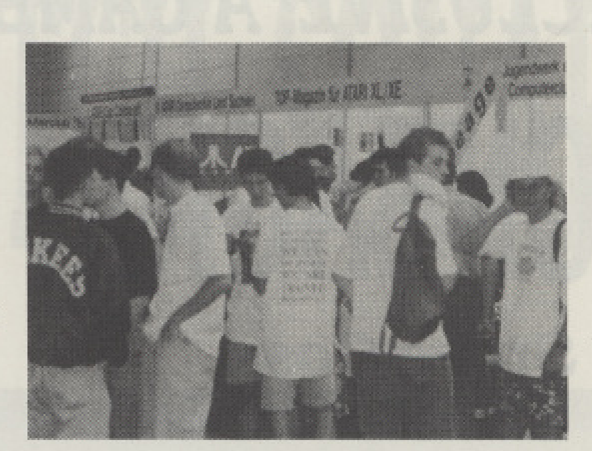
Many other display areas were set aside for users to get hands-on experience of the new Falcon, Mega ST's and STE's.

## NEW ST SOFTWARE

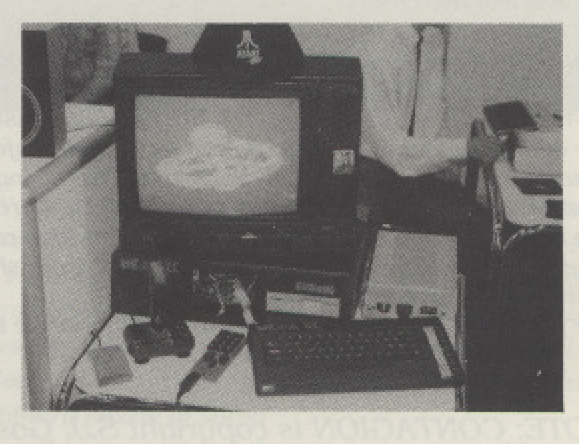
Lots of new software for the ST worth a mention include an excellent music publishing program from Amadeus Music Software, a video streamer that can store up to 600Mb on a VHF E240 tape for the ST/TT/Falcon from Robmoller and MIDI 16+ Cartridge for ST/STE which is a 16 channel Midi expander from Midi Computer Systeme.

The **ST BOOK**, Atari's venture into the laptop market, was also on display. They seem to have improved the screen display compared to the original prototype model I saw at Wembley last year. In the game area new releases for the **ATARI LYNX** were on display and readily available from many exhibitors on the day. New titles include Hydra, Hockey and Batman Returns. Product lists also showed many other games not on display including Supersqweek, Crystal Mines II, World Class Soccer, Hyperdrome, Dirty Larry, Cabal, Geo-Duel, Pit Fighter, Vindicators, Pinball Jam, Raiden and Space War. Surprisingly, both the **2600** and the **7800 VCS** machines were on show and very well supported with many new cartridges I have not seen before including Klax, BMX, Motordeo, Super Baseball and Xenophobe.

Many companies had software for the **PORTFOLIO** but there was very little printed information available. One German company demonstrated a very impressive 16 channel 25Mhz logic analyser that can be interfaced to the Portfolio.







*Rows of stands supporting the 8-bit ... hackers including the High Tech Team and Polish teams ... highly expanded Mega XE systems were just a part of the unexpectedly strong 8-bit support at the fair*

## IMPRESSIONS

The impression I got from attending this exhibition was that Atari Germany is extremely well organised and dedicated to providing massive user support. They are full of the sparkle and enthusiasm of the sort that used to be present in Atari UK a few years ago and this encourages third party companies to develop new and specialised products. Congratulations to Atari Germany and all involved in the show organisation. The only word to describe it is brilliant!

### SUPPLIERS MENTIONED

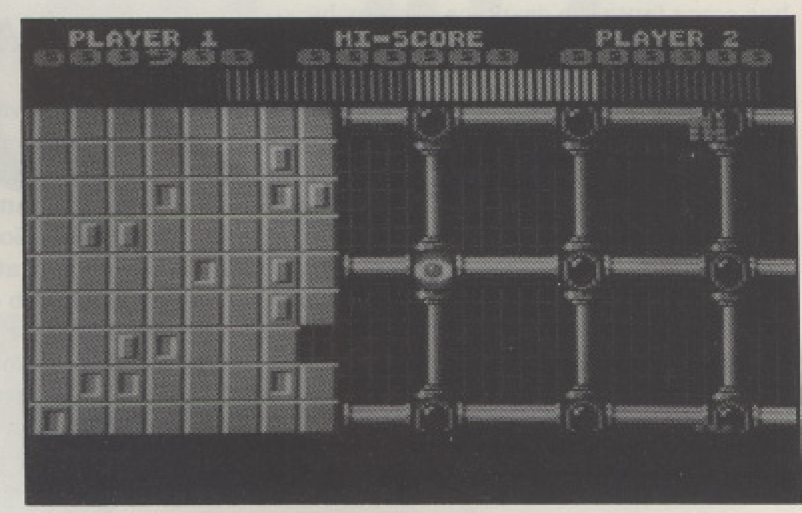
**Amadeus Music Software GMBH**, Rohrauerstrabe 50, 800 Munchen 71. Tel.089/7854650
**Robmoller GMBH**, Tombergstr, 12A, 5309 Meckenheim. Tel. 022256/2061
**Midi Computer Systeme**, Baroper Banhof Str. 53, 4600 Dortmund 50. Tel. 0231/759283

# DISK BONUS

## EXCLUSIVE! A GAME DEVELOPED FOR ATARI!

# CONTAGION

### by Steve Goss




***We are proud to present as our DISK BONUS this issue a game developed for Atari which, due to their change in support of the XL/XE, was not released. Now you can enjoy what would have been a full price commercial Atari program!***

*The action is set aboard Galactic Power Grid (GPG) where a strange space virus has invaded the grid and threatens to deprive the Federated Galaxies of their power and defence capabilities. You have control of the Sentinel Droid that patrols and maintains the grid and your most challenging duty to date will be ridding the grid of infection. Although help may be on its way you must fight alone to contain the spread of the Virus - the Federated Galaxies depend on you.*

*The Sentinel traverses the grid in constant velocity mode - push the joystick once and the Droid moves and won't stop until you reach a Node. If you push to change from horizontal to vertical travel the move will occur only at the node point, however you can reverse direction at any time. Pressing the fire button will arm the weapons and pressing the stick in any direction will cause the Droid to fire the weapon in the chosen direction. Holding the fire button and tapping in a direction will cause the Droid to fire repeatedly. Once the Droid is at a node it can be frozen there by holding the fire button. Pushing the stick in the appropriate direction will then fire.*

*The Virus invades the grid systematically, on each level there is one more spore than the last. The Virus will invade a node and the spores travel along the grid to reach the next node which is colonised, and then more spores grow out. The Virus is a spinning helix which requires two shots to kill, although one hit only will paralyse it and prevent it from spreading more spores. The spores only require one hit to destroy, but they multiply fast.*

*The aim of the game is to clear each level of the infection which means all of the Viruses on each level. Spores don't matter as they cannot grow unless fed by a virus. It won't take long for a Virus to spread as each level introduces more and more seed points. Freezing all the peripheral Viruses of an infected area contains the spread of the Virus.*

*The Sentinel has a shield and this is eroded with contact with the infection. One last word of caution - with the Virus comes Bacteria which, although not infectious, can drain shields and destroy the Droid. These pests have one neat trick up their sleeves which makes them an awkward kill.*

*The fight will be long and hard, but you can make it through!*

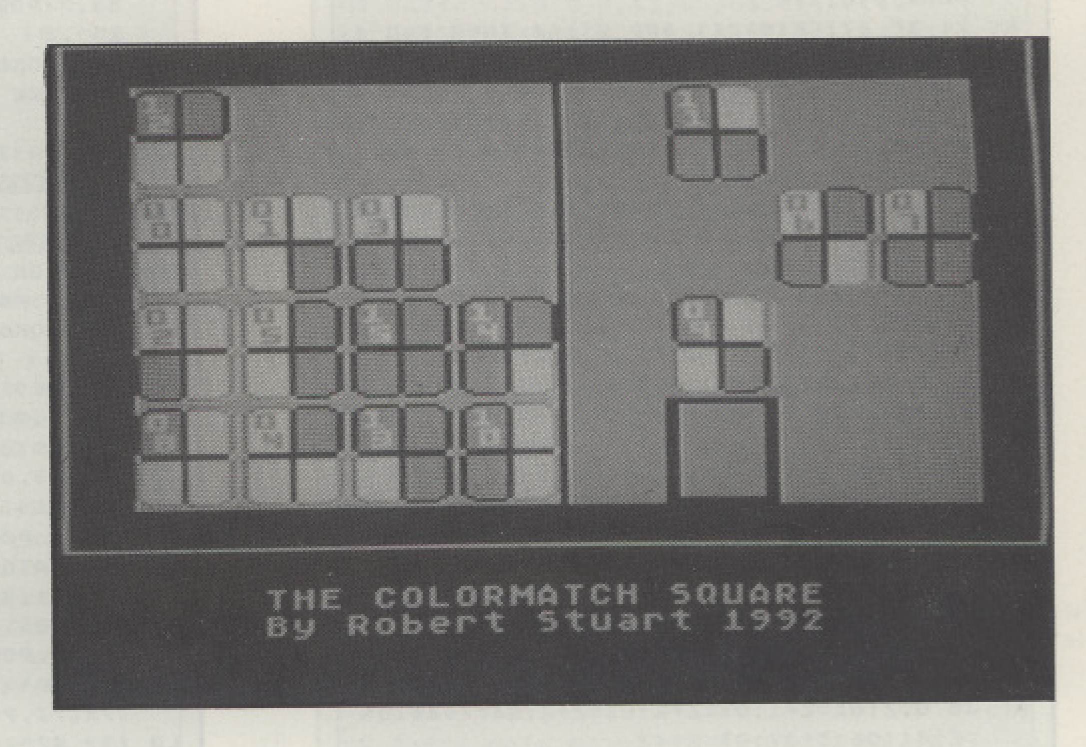


**The NEW ATARI USER Issue Disk which includes all of the programs from this issue together with the DISK BONUS is sent automatically to disk subscribers. The disk may be purchased separately for £2.95. Send a cheque or postal order or quote your credit card number to PAGE 6, P.O. Box 54, Stafford, ST16 1DR. Credit card orders are accepted by telephone on 0785 213928**

XL/XE TYPE-IN

# THE COLOURMATCH SQUARE

***Robert Stuart loves puzzle games and can program some pretty smart ones. Here is another brain teaser to keep you busy for many hours***




*While browsing through a library book called 'Creative puzzles of the World', I came across this great little mind bender which was invented by a computer scientist (and puzzle enthusiast) called C. J. Bouwkamp. The game employs 16 square tiles (numbered 0-15), each of which is sub-divided into four smaller squares which represent the binary number unique to that tile. For example, the first tile (0) contains 4 white squares, which represents 0000 in binary; the fourth tile (3) contains white, white, grey and grey (0011), and so on. Each small white square in a tile represents a 0, each grey square a 1. The final tile (15) is 1111; grey, grey, grey and grey! The book recommended making the puzzle pieces from stiff card, but I thought it would be quite appropriate to use a computer program to simulate the pieces; after all, it is a binary puzzle of sorts!*

*The objective of this Atari version of the puzzle is to move all 16 tiles from the yellow square onto the red square in such a way that they all match their neighbours in colour. Select a piece to move by moving the cursor onto it and pressing fire. The piece will now flash. Now, move the cursor to where you want to put the piece and press fire again. You can press START at any time to start again if you think you are getting stuck, although there is no limit to the number of moves you can make.*

## A POSSIBLE SOLUTION

If you are still confused, try positioning the tiles onto the red square in this order: 0, 1, 7, 10, 3, 6, 12, 9, 15, 11, 2, 5, 13, 14, 8 and 4. You will notice how all four of the small squares on each tile match in colour to the adjacent squares of the neighbouring tiles - a legal colourmatch square!

## AIM FOR FIFTY!

*The creator of the puzzle has found that there are 50 distinctly different colourmatch patterns in all, although similar patterns can be found with different tile arrangements. The legal colourmatch squares are not easy to find, as the number of possible tile arrangements is enormous compared to the number of legal colourmatch squares. This program lets you try and find them although the computer does not check for them. The program simply simulates the movement of the pieces only and you must use your own eyes to find the legal patterns. When you have found one, check it over and then jot down the positions of the 16 tiles and try for another! See how many of the 50 you can find. I will send New Atari User a full list of all 50 standard solutions to be printed in a future issue. Have fun!*

***Program overleaf*** ☞

# THE COLOURMATCH SQUARE

```
EH 0 REM ******************************
UL 1 REM *    THE COLORMATCH SQUARE     *
FU 2 REM *   CREATED BY C.J.BOUWKAMP    *
EK 3 REM ******************************
MO 4 REM *      ATARI XL/XE PROGRAM     *
PY 5 REM *     BY ROBERT STUART 1992    *
YT 6 REM *  NEW ATARI USER - OCT 1992   *
EO 7 REM ******************************
NN 8 REM
MH 14 GOSUB 10000
ON 15 GOSUB 100
QE 18 X=128:Y=16:POKE 1538,X:POKE 1539,Y:
   Z=40100
TF 19 REM GET PIECE
TB 20 IF STICK(0)=7 AND X<>176 THEN X=X+1
   6:POKE 1538,X:Z=Z+4:SOUND 0,10,10,10:S
   OUND 0,0,0,0
XC 21 IF STICK(0)=11 AND X<>64 THEN X=X-1
   6:POKE 1538,X:Z=Z-4:SOUND 0,10,10,10:S
   OUND 0,0,0,0
XN 22 IF STICK(0)=13 AND Y<>112 THEN Y=Y+
   32:POKE 1539,Y:Z=Z+160:SOUND 0,10,10,1
   0:SOUND 0,0,0,0
UX 23 IF STICK(0)=14 AND Y<>16 THEN Y=Y-3
   2:POKE 1539,Y:Z=Z-160:SOUND 0,10,10,10
   :SOUND 0,0,0,0
SP 24 IF STRIG(0)=0 AND PEEK(Z)<128 AND P
   EEK(Z)<>0 THEN FOR F=120 TO 0 STEP -20
   :SOUND 0,F,10,F/10:NEXT F:GOTO 30
TU 25 IF PEEK(53279)=6 THEN GOTO 15
JJ 26 POKE 77,0:FOR F=1 TO 10:NEXT F:GOTO
    20
LY 30 SOUND 0,0,0,0
QD 31 N=PEEK(Z):N1=PEEK(Z+1):N2=PEEK(Z+2)
   :N3=PEEK(Z+3):N4=PEEK(Z+40):N5=PEEK(Z+
   41):N6=PEEK(Z+42):N7=PEEK(Z+43)
UU 32 N8=PEEK(Z+80):N9=PEEK(Z+81):N10=PEE
   K(Z+82):N11=PEEK(Z+83)
OF 33 N12=PEEK(Z+120):N13=PEEK(Z+121):N14
   =PEEK(Z+122):N15=PEEK(Z+123)
RF 35 Q=Z:Q1=Z+1:Q2=Z+2:Q3=Z+3:Q4=Z+40:Q5
   =Z+41:Q6=Z+42:Q7=Z+43
NP 36 Q8=Z+80:Q9=Z+81:Q10=Z+82:Q11=Z+83:Q
   12=Z+120:Q13=Z+121:Q14=Z+122:Q15=Z+123
JW 39 FOR G=Z TO Z+120 STEP 40:FOR F=0 TO
    3:POKE G+F,PEEK(G+F)+128:NEXT F:NEXT
   G
TD 40 IF STICK(0)=7 AND X<>176 THEN X=X+1
   6:POKE 1538,X:Z=Z+4:SOUND 0,10,10,10:S
   OUND 0,0,0,0
XE 41 IF STICK(0)=11 AND X<>64 THEN X=X-1
   6:POKE 1538,X:Z=Z-4:SOUND 0,10,10,10:S
   OUND 0,0,0,0
XP 42 IF STICK(0)=13 AND Y<>112 THEN Y=Y+
   32:POKE 1539,Y:Z=Z+160:SOUND 0,10,10,1
   0:SOUND 0,0,0,0
UZ 43 IF STICK(0)=14 AND Y<>16 THEN Y=Y-3
   2:POKE 1539,Y:Z=Z-160:SOUND 0,10,10,10
   :SOUND 0,0,0,0
AN 45 IF STRIG(0)=0 AND PEEK(Z)=0 THEN 50
UC 48 IF PEEK(53279)=6 THEN GOTO 15
MT 49 POKE 77,0:FOR F=1 TO 10:NEXT F:GOTO
    40
TV 50 FOR F=120 TO 0 STEP -20:SOUND 0,F,1
   0,F/10:NEXT F:SOUND 0,0,0,0
ZR 51 POKE Z,N:POKE Z+1,N1:POKE Z+2,N2:PO
   KE Z+3,N3:POKE Z+40,N4:POKE Z+41,N5:PO
   KE Z+42,N6:POKE Z+43,N7
NG 52 POKE Z+80,N8:POKE Z+81,N9:POKE Z+82
   ,N10:POKE Z+83,N11
IP 54 POKE Z+120,N12:POKE Z+121,N13:POKE
   Z+122,N14:POKE Z+123,N15
DH 56 POKE Q,0:POKE Q1,0:POKE Q2,0:POKE Q
   3,0:POKE Q4,0:POKE Q5,0:POKE Q6,0:POKE
    Q7,0
TA 57 POKE Q8,0:POKE Q9,0:POKE Q10,0:POKE
    Q11,0:POKE Q12,0:POKE Q13,0:POKE Q14,
   0:POKE Q15,0
RW 60 GOTO 20
BF 99 REM SET UP
FE 100 GRAPHICS 0:POKE 559,0:? "K":POSITI
   ON 0,0:POKE 82,0:POKE 712,0:POKE 710,1
   0:POKE 709,4:POKE 708,14:POKE 711,198
EL 101 POKE 16,64:POKE 53774,64:POKE 752,
   1:FOR F=39974 TO 39991:POKE F,4:NEXT F
   :POKE 39971,68:POKE 39992,132
JE 103 POKE 53277,3:POKE 54279,120:POKE 6
   23,20:POKE 53260,117:POKE 756,140
FS 104 POKE 53248,129:POKE 704,220:POKE 5
   3256,3:POKE 53249,160:POKE 705,220:POK
   E 53257,3
DC 105 POKE 53250,65:POKE 706,60:POKE 532
   58,3:POKE 53251,96:POKE 707,60:POKE 53
   259,3
NK 118 POKE 54286,0:POKE 512,100:POKE 513
   ,6:POKE 548,0:POKE 549,120:POKE 54286,
   192
LK 119 POSITION 1,0:? "XYYYYYYYYYYYYYYYYY
   YYYYYYYYYYYYYYYYYYY]"
YM 120 POSITION 1,19:? "Z[[[[[[[[[[[[[[[[[
   [[[[[[[[[[[[[[[[[[[_"
PH 121 FOR F=40041 TO 40721 STEP 40:POKE
   F,180:POKE F+37,181:NEXT F
LE 122 POKE 1538,0:POKE 1539,0:POKE 559,6
   2
DR 123 RESTORE 124:FOR F=40100 TO 40115:R
   EAD X:POKE F,X:NEXT F
XO 124 DATA 20,21,8,9,24,25,8,9,28,29,8,9
   ,32,33,8,9
OL 125 RESTORE 126:FOR F=40140 TO 40155:R
   EAD X:POKE F,X:NEXT F
WH 126 DATA 22,23,10,11,26,27,10,11,30,31
   ,10,11,34,35,10,11
VG 128 RESTORE 130:FOR F=40180 TO 40195:R
   EAD X:POKE F,X:NEXT F
RD 130 DATA 68,69,72,73,68,69,80,81,76,77
   ,72,73,76,77,80,81
LD 132 RESTORE 134:FOR F=40220 TO 40235:R
   EAD X:POKE F,X:NEXT F
HB 134 DATA 70,71,74,75,70,71,82,83,78,79
   ,74,75,78,79,82,83
XH 136 RESTORE 138:FOR F=40260 TO 40275:R
   EAD X:POKE F,X:NEXT F
PO 138 DATA 36,37,16,17,40,41,16,17,44,45
   ,16,17,48,49,16,17
HY 140 RESTORE 142:FOR F=40300 TO 40315:R
   EAD X:POKE F,X:NEXT F
WN 142 DATA 38,39,18,19,42,43,18,19,46,47
   ,18,19,50,51,18,19
UC 144 RESTORE 146:FOR F=40340 TO 40355:R
   EAD X:POKE F,X:NEXT F
RX 146 DATA 68,69,72,73,68,69,80,81,76,77
   ,72,73,76,77,80,81
BA 148 RESTORE 150:FOR F=40380 TO 40395:R
   EAD X:POKE F,X:NEXT F
GT 150 DATA 70,71,74,75,70,71,82,83,78,79
   ,74,75,78,79,82,83
QX 152 RESTORE 154:FOR F=40420 TO 40435:R
   EAD X:POKE F,X:NEXT F
FZ 154 DATA 84,85,8,9,88,89,8,9,92,93,8,9
   ,96,97,8,9
DB 156 RESTORE 158:FOR F=40460 TO 40475:R
   EAD X:POKE F,X:NEXT F
TS 158 DATA 86,87,10,11,90,91,10,11,94,95
   ,10,11,98,99,10,11
NS 160 RESTORE 162:FOR F=40500 TO 40515:R
   EAD X:POKE F,X:NEXT F
RP 162 DATA 68,69,72,73,68,69,80,81,76,77
   ,72,73,76,77,80,81
ZW 164 RESTORE 166:FOR F=40540 TO 40555:R
   EAD X:POKE F,X:NEXT F
HN 166 DATA 70,71,74,75,70,71,82,83,78,79
```

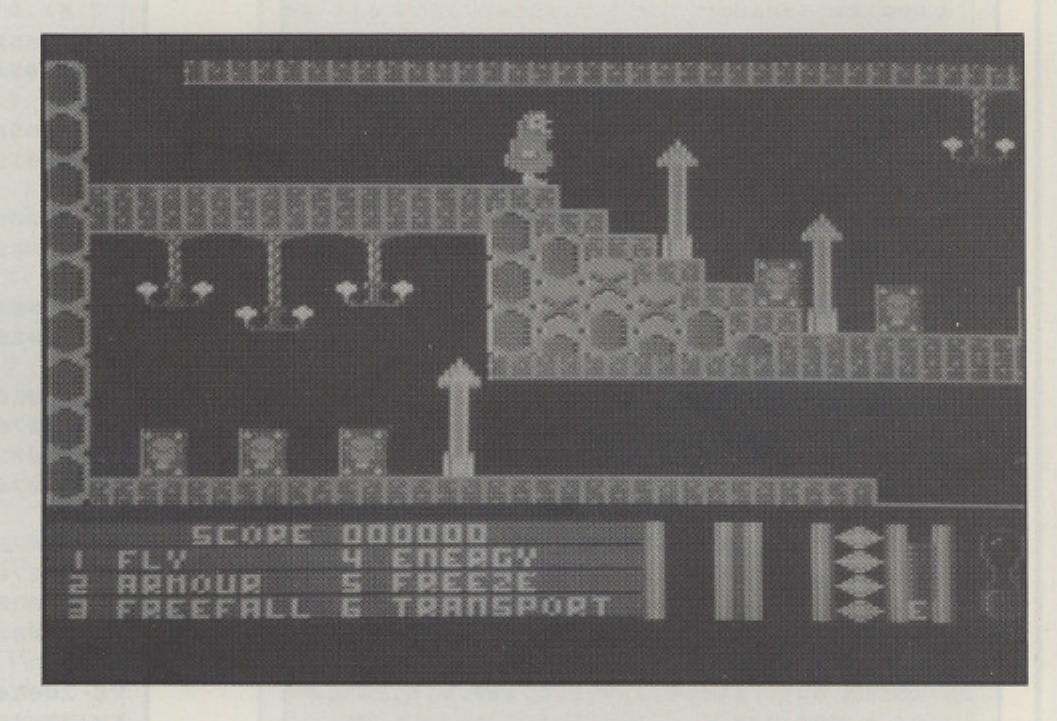
```
   ,74,75,78,79,82,83
GU 168 RESTORE 170:FOR F=40580 TO 40595:R
   EAD X:POKE F,X:NEXT F
BN 170 DATA 100,101,16,17,104,105,16,17,1
   08,109,16,17,112,113,16,17
WR 172 RESTORE 174:FOR F=40620 TO 40635:R
   EAD X:POKE F,X:NEXT F
TX 174 DATA 102,103,18,19,106,107,18,19,1
   10,111,18,19,114,115,18,19
IV 176 RESTORE 178:FOR F=40660 TO 40675:R
   EAD X:POKE F,X:NEXT F
SJ 178 DATA 68,69,72,73,68,69,80,81,76,77
   ,72,73,76,77,80,81
TM 180 RESTORE 182:FOR F=40700 TO 40715:R
   EAD X:POKE F,X:NEXT F
HF 182 DATA 70,71,74,75,70,71,82,83,78,79
   ,74,75,78,79,82,83
WW 190 POSITION 0,21:? "          THE COLO
   RMATCH SQUARE"
UZ 192 POSITION 0,22:? "          By Rober
   t Stuart 1992"
RG 200 POKE 559,62
DK 9999 RETURN
ZJ 10000 REM GRAPHICS DATA
SK 10002 GRAPHICS 0:POKE 16,64:POKE 53774
   ,64:POKE 710,0:POKE 709,14:POKE 752,1:
   ? :? "      PLEASE WAIT A MOMENT...."
QK 10010 RESTORE 20000:T=900:FOR F=32 TO
   927:READ X:POKE 35840+F,X:T=T-1:POSITI
   ON 32,1:? INT(T/10);" ":NEXT F:? "K"
PH 10106 REM DISPLAY LIST INTERRUPT
MM 10107 RESTORE 10108:FOR F=1636 TO 1656
   :READ X:POKE F,X:NEXT F
CV 10108 DATA 72,169,14,141,10,212,141,23
   ,208,169,0,141,24,208,169,224,141,9,21
   2,104,64
JZ 10109 REM VERTICAL BLANK INTERRUPT
OQ 10110 RESTORE 10111:FOR F=30720 TO 307
   93:READ X:POKE F,X:NEXT F
RO 10111 DATA 172,1,6,162,0,169,0,153,32,
   123,232,200,224,36,208,247
JM 10112 DATA 162,0,189,2,6,157,0,6,232,2
   24,2,208,245
EN 10113 DATA 172,3,6,162,0,189,0,128,153
   ,32,123,232,200,224,36,208,244,173,2,6
   ,141,7,208
AR 10114 DATA 24,105,3,141,6,208,105,7,14
   1,5,208,105,3,141,4,208,206,199,2,76,9
   8,228
PU 10115 REM SPRITE SQUARE
RZ 10116 RESTORE 10116:FOR F=32768 TO 327
   99:READ X:POKE F,X:NEXT F:DATA 255,255
   ,129,129,129,129,129,129,129,129,129
OP 10117 DATA 129,129,129,129,129,129,129
   ,129,129,129,129,129,129,129,129,129,1
   29,129,129,255,255
LI 10200 FOR F=31792 TO 31919:POKE F,255:
   POKE F+256,255:POKE F+512,255:POKE F+7
   68,255:NEXT F
DM 10500 RETURN
KM 20000 DATA 0,3,13,55,55,55,55,55
YY 20010 DATA 0,255,85,245,117,117,117,24
   5
WU 20012 DATA 53,53,53,53,53,53,53,10
OH 20014 DATA 85,253,221,221,221,253,85,1
   70
XV 20016 DATA 0,63,149,149,149,149,149,14
   9
PC 20018 DATA 0,240,92,87,87,87,87,87
YN 20020 DATA 149,149,149,149,149,149,149
   ,170
QV 20022 DATA 87,87,87,87,87,87,87,168
KX 20024 DATA 0,2,11,45,47,47,47,45
FL 20026 DATA 0,170,255,127,127,127,127,9
   5
QD 20028 DATA 47,47,47,47,47,47,47,10
UH 20030 DATA 255,87,127,87,247,87,255,17
   0
AM 20032 DATA 0,42,191,191,191,191,191,19
   1
BV 20034 DATA 0,160,248,254,254,254,254,2
   54
DM 20036 DATA 191,191,191,191,191,191,191
   ,170
PT 20038 DATA 254,254,254,254,254,254,254
   ,168
LC 20040 DATA 0,3,13,55,55,55,55,55
ZU 20042 DATA 0,255,85,245,117,117,117,24
   5
XQ 20044 DATA 53,53,53,53,53,53,53,10
PD 20046 DATA 85,253,221,221,221,253,85,1
   70
MQ 20048 DATA 0,3,13,55,55,55,55,55
ZO 20050 DATA 0,255,85,245,117,117,117,24
   5
XK 20052 DATA 53,53,53,53,53,53,53,10
BM 20054 DATA 85,245,117,117,117,253,85,1
   70
MK 20056 DATA 0,3,13,55,55,55,55,55
BC 20058 DATA 0,255,85,245,117,117,117,24
   5
XE 20060 DATA 53,53,53,53,53,53,53,10
CS 20062 DATA 85,253,93,253,213,253,85,17
   0
ME 20064 DATA 0,3,13,55,55,55,55,55
AW 20066 DATA 0,255,85,245,117,117,117,24
   5
YS 20068 DATA 53,53,53,53,53,53,53,10
NP 20070 DATA 85,253,93,253,93,253,85,170
LY 20072 DATA 0,3,13,55,55,55,55,55
AQ 20074 DATA 0,255,85,245,117,117,117,24
   5
YM 20076 DATA 53,53,53,53,53,53,53,10
JR 20078 DATA 85,221,221,253,93,93,85,170
LS 20080 DATA 0,3,13,55,55,55,55,55
AK 20082 DATA 0,255,85,245,117,117,117,24
   5
YG 20084 DATA 53,53,53,53,53,53,53,10
FY 20086 DATA 85,253,213,253,93,253,85,17
   0
NG 20088 DATA 0,3,13,55,55,55,55,55
AE 20090 DATA 0,255,85,245,117,117,117,24
   5
YA 20092 DATA 53,53,53,53,53,53,53,10
SP 20094 DATA 85,213,213,253,221,253,85,1
   70
NA 20096 DATA 0,3,13,55,55,55,55,55
BS 20098 DATA 0,255,85,245,117,117,117,24
   5
WJ 20100 DATA 53,53,53,53,53,53,53,10
GG 20102 DATA 85,253,93,93,93,93,85,170
HV 20104 DATA 182,182,182,182,182,182,182
   ,182
IZ 20106 DATA 158,158,158,158,158,158,158
   ,158
YL 20108 DATA 0,0,0,0,0,0,0,0
XB 20110 DATA 0,0,0,0,0,0,0,0
CE 20112 DATA 0,42,175,181,183,182,182,18
   2
HI 20114 DATA 0,170,255,85,255,170,0,0
TG 20116 DATA 182,182,182,183,181,175,42,
   0
NO 20118 DATA 0,0,170,255,85,255,170,0
GS 20120 DATA 0,170,255,85,255,170,0,0
MP 20122 DATA 0,168,250,94,222,158,158,15
   8
MY 20124 DATA 0,0,170,255,85,255,170,0
BZ 20126 DATA 158,158,158,222,94,250,168,
   0
FB 20128 DATA 0,0,0,0,0,2,10,42
ZZ 20130 DATA 0,0,0,32,160,160,170,170
```

continued ☛

# TARKUS AND THE CRYSTAL OF FEAR

Here's another brand new title from Tiger Developments, whose first game release - Mission Zircon - was reviewed in issue 53. TARKUS AND THE CRYSTAL OF FEAR (hereafter Tarkus) is an arcade adventure that owes much to Montezuma's Revenge and other 'find the key' games of this genre. This said, it seems to incorporate a welcome touch of originality.

Your imagination is transported to the year 2003 (not long to go folks!) when, following a protracted period of unrest, a massive and potentially devastating war is about to erupt. Your only hope of saving the planet (and thereby being able to attend the twentieth birthday celebrations of Page 6 Publishing) is to unearth four 'crystals of emotion' - life, peace, generosity and fear. The crystals will apparently restore the balance of emotions to the people of Earth, and thus ensure everlasting happiness for all. Not convinced? No, me neither but if you were an elderly druid called Tarkus, you'd probably jump at the chance to embark on this hazardous mission! Needless to say, you are an elderly druid called Tarkus...




***reviewed by Paul Rixon***

The title page features a large horizontal scroller that announces the credits, says a few hellos and also reveals the game was written on an Atari 130XE with the assembler/ editor cartridge. Press the Fire button and you're dropped into Lake Land - the access point for each of the game's four scenarios. By jumping into one of the four lakes on this screen you can enter the stone, crystal, magic or gold worlds respectively. When necessary you can jump out of a world, back into Lake Land via the same route. Your eventual goal is to locate the four crystals and return them to Lake Land, but as you might have guessed there are plenty of problems to deal with first! Fortunately there's no time restriction so you can explore each world at your own pace.

Every world is essentially a collection of platforms and hazards of one sort or another. If you fall too far from a ledge or come into contact with the nasties you can be sure of a rapid depletion in your energy reserves. Personally I think the allocation of energy here is rather conservative, though perhaps I'm expecting it to be too easy! It certainly isn't. To help you overcome the-difficulties there are various objects awaiting collection that will give you special powers ranging from bonus energy to improved armour and even the option to fly! Each world features a particular kind of object and you need to collect pairs of these in different combinations before taking them to the cauldron (found in the magic world, naturally) to obtain the corresponding 'spell'. The spells available are highlighted in the status panel at the bottom of your screen, a number indicating the appropriate activation code. Most spells are only effective for a short period and the time remaining is indicated by a sand-glass shown alongside other information regarding your health, progress and inventory. You can carry up to two objects at once, in addition to a key. Unless you can find the keys corresponding to several locked doors you've no hope of finding the missing crystals (hint: you'll have to use some of the spells to find them).

The visual design of Tarkus is generally of a pleasantly high standard. Both the background graphics and the various nasties are clearly defined, colourful and appropriate to their respective scenarios. The central character moves smoothly and responsively to joystick input and this means that the irritation factor attributed to many similar games has been avoided. The music is quite good, especially since you can switch it off when you've heard enough! One small niggle is that the Atari's 'Attract Mode' cycle is not disabled after joystick input so if you don't hit the keyboard very often you may experience some unusual colour schemes! To be fair, you're unlikely to encounter this problem since normal play involves several keyboard inputs. The verdict overall has got to be a big thumbs up to the author of Tarkus.

Tiger Developments recently announced the launch of two new budget priced disk games - Boing II and Speed Fox. I hope to report on these in a forthcoming issue of NAU but in the meantime, why not write to Tiger Developments for the latest details of their very welcome Atari 8-bit support.

*TARKUS AND THE CRYSTAL OF FEAR is available from Tiger Developments on disk only, priced at £4.99. For further information check their advertisements in New Atari User.*

# THE COLOURMATCH SQUARE

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UZ 20146 DATA 168,87,87,87,87,87,87,87
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CC 20170 DATA 0,170,255,95,223,223,223,95
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LY 20184 DATA 0,2,11,45,47,47,47,45
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KB 20200 DATA 0,2,11,45,47,47,47,45
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LP 20208 DATA 0,2,11,45,47,47,47,45
EJ 20210 DATA 0,170,255,127,127,127,127,9
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PB 20212 DATA 47,47,47,47,47,47,47,10
XG 20214 DATA 255,87,247,87,247,87,255,17
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FX 20218 DATA 0,170,255,127,127,127,127,9
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OV 20220 DATA 47,47,47,47,47,47,47,10
NO 20222 DATA 255,119,119,87,247,247,255,
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LD 20224 DATA 0,2,11,45,47,47,47,45
FR 20226 DATA 0,170,255,127,127,127,127,9
5
QJ 20228 DATA 47,47,47,47,47,47,47,10
UN 20230 DATA 255,87,127,87,247,87,255,17
0
```

# FOOTBALL

## Robert Stuart dons his shorts and boots for a trip through the many milestones of football on your favourite machine

If you are a fan of Association Football (or soccer; take your pick) then you will be glad to know that unlike certain other kinds of software, there is quite a large selection of football games to choose from for the Atari XL/XE. Computerised football simulations usually fall into one of two main categories; arcade games in which you control the movement of your team's players, and managerial simulations in which you control practically everything except the actual players. This type of game requires you to act as team manager which means you have to make all the important decisions such as buying new players, offloading unwanted players, deciding on team tactics, and avoiding club bankruptcy.

### IT ALL BEGAN WITH ...

### SOCCER

The first football game ever released for the Atari was the imaginatively named ***Soccer*** from Thorn EMI way back in 1981. The game was originally released only as an 8K ROM cartridge and would then have set you back over thirty quid! At the time of its release, one computer magazine called it 'probably the best football game you will ever see on a home computer'! Okay, maybe he was a little bit too enthusiastic, but even over ten years later, this remains one of the best football games available.

The menu offers a choice of one to four players, as the program was written for the old 400/800 computers which had four joystick ports. This enabled two human players to play on each team, or even all four in the same team playing against the computer. However, on the XL/XE models, only the one or two player options are available, although both players can still play on the same side, a feature which has not been incorporated into any subsequent soccer games for the Atari. Of course, with both players collaborating against the computer, it is possible (after a few practice matches) to give the Atari a good hiding. This is an excellent way to practice playing the game if you find it difficult to begin with.

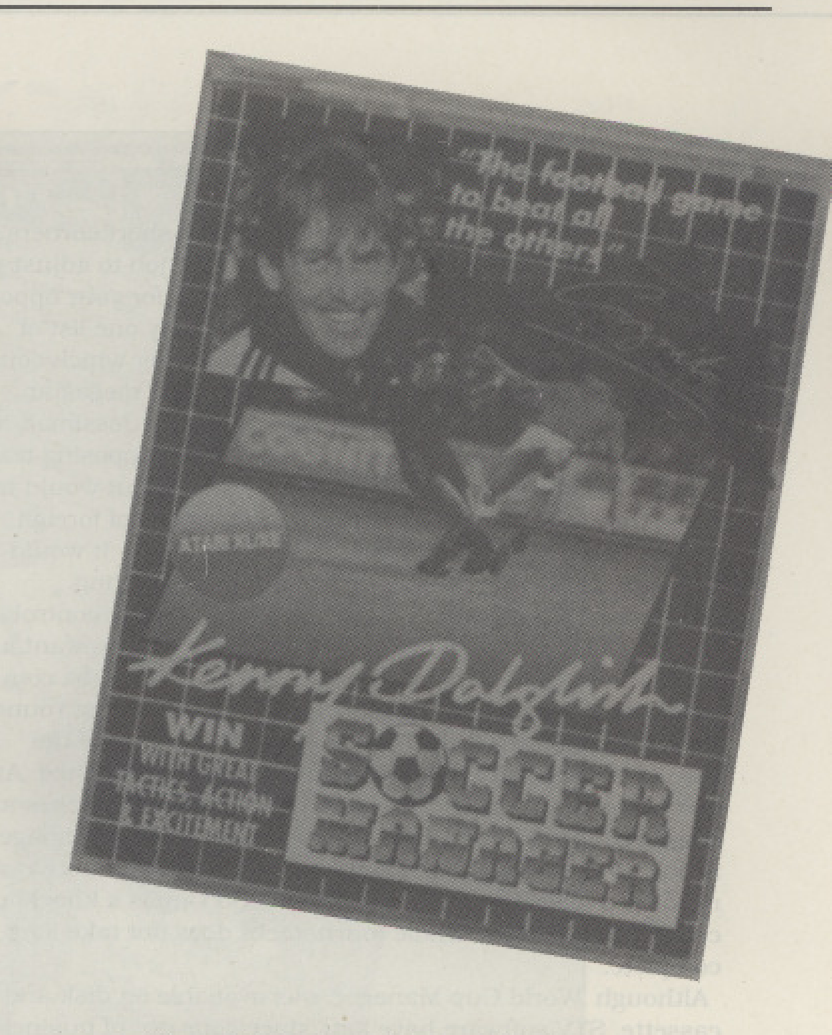
The control method used in 'EMI Soccer' is also unique. When you press the joystick trigger, the player on your team who is nearest to the ball momentarily changes into a number 1 or 2 (depending on which joystick you are using), and that player is then put under your joystick's control. The fire button is used to kick the ball when it is in your possession; it sounds a bit strange but it works very well. Whenever a player gets the ball, the other members of your team tend to stand around ball-watching, so you have to take a little time to gradually get your team organised into some kind of formation. Goal kicks, corner kicks and throw-ins are taken automatically by the computer using the nearest player. When you manage to beat the computer, you can increase the skill level for a more competitive match or, better still, play against a human opponent, which is a lot more fun. Another option on the menu allows you to choose the length of game, with choices ranging from ten minutes to a full ninety minute match!

The actual player graphics are good, although very small (as they should be in comparison to the size of the pitch), and the teams are coloured black and white, so they are easily distinguished on colour and black and white televisions. The pitch scrolls horizontally very smoothly, and the referee's whistle is even quite realistic. 'Soccer' was re-released around 1984 (as were the rest of EMI's titles) on the Sparklers label for a third of the original price (on cassette only), and again more recently by Alternative Software at the almost giveaway price of two quid. The cassette is easy to get and is currently available from Miles Better Software, but the original ROM cartridge version is almost impossible to find. This game is highly recommended.

### FOOTBALL MANAGER

Everybody must have heard of ***Football Manager***, which is probably the only chart topping game ever which was written in Basic, and undoubtedly the game which has appeared on more different computer formats than any other. The original game was released in early 1982 for such antique machines as the ZX81 and TRS80, but when the Spectrum conversion arrived a year later the game sold in vast quantities. It was subsequently converted to just about every home computer you can think of (and a few more besides), with the Atari version arriving (as usual, last) a few years later. Atari 'Football Manager' was a big disappointment, inferior even to the Spectrum program, using monochrome displays and no graphics whatsoever. The Spectrum and Commodore versions boasted

# .CRAZY!




match highlights, using small player graphics (a bit similar to those in 'EMI Soccer') which added little to the game, but were preferable to the 'Match in Progress' text screen on the Atari.

Once past the very long cassette load, you are given a list of all ninetytwo English Football League clubs, one of which you can choose to 'manage'. Alternatively, you can input your own choice of club, together with the club you want the new team to replace. After this, you select a difficulty level ranging from one (beginner) to seven (genius); newcomers should start with level one as the game is a little difficult to start with, but the difficulty can be altered at any time during the game anyway, which is a nice feature.

Your team begins in League division four, and each season also brings the challenge of playing for the FA Cup. You begin with a managerial rating of zero (per cent); any success you have will increase your rating, and of course if you have a bad spell your rating will go down. Winning the League will gain your team promotion to the next division, with the ultimate aim of the game being to win the First division Championship and the FA Cup. The game can be saved to tape at any time, which is an excellent feature. Once you gain promotion to the Third division, you can save the game and re-load it every time you play, so that you never have to start from the bottom division again. Bank loans can be arranged to buy better players and any useless players can be sold, but if you start losing a lot of money then the club Directors may decide to fire you!

Each player in your squad is given a number, a rating for skill and energy, and his current transfer value. Most of the players in the game were quite well-known stars of English Soccer when the original game was released in 1982, but as the game is rather old, many of the players listed have since retired, so younger Soccer fans may not recognise many of them; there are no Linekers, Beardsleys or Gazzas (thankfully) in this game.

'Football Manager' is totally keyboard controlled, and despite its age, lack of colour and graphics, is a fairly entertaining piece of software. I think the original price was about six quid but the game was re-released by Prism Leisure as a budget cassette a few years back and as far as I know is still pretty easy to get hold of. It is certainly worth a look for the price.

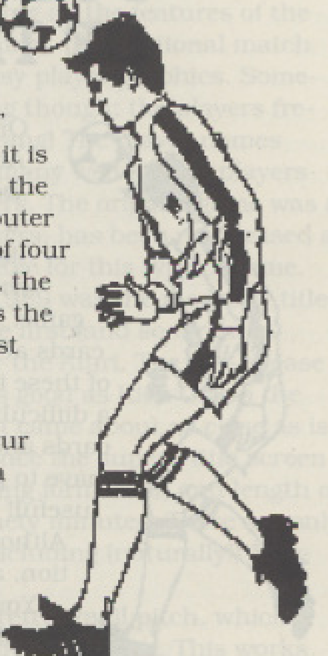
## AN ODDITY

Shortly after the release of 'Football Manager', a similar game was released called ***Liverpool*** which was also written in Basic but was available by mail order only on cassette and cost ten quid. It was then made available on disk a few months later (the first Atari football game available in this format) for fifteen quid, but is now very hard to get.

## THE WORLD CUP

When the 1986 World Cup Finals took place in Mexico, many software companies jumped on the bandwagon and produced football games for many machines to tie in with the mass TV coverage of the event. Atari XL/XE owners had to wait almost a year after the World Cup had finished before STV software released ***World Cup Manager***. The same company also gave us 'Darg', an excellent Boulderdash clone. 'World Cup Manager' was released on both cassette and disk formats simultaneously.

The game is very similar to 'Football Manager' but introduced Atari soccer fans to a new feature: running commentaries of the matches as they are played, all in nice multicoloured text! To begin the World Cup competition you need twenty four International teams, which are provided for you, or you can type in your own selection of countries if you prefer. After this you choose a team to manage, and then you can actually type in the names of your chosen country's players, something which 'Football Manager' did not let you do, but in this game it is necessary as the names are used in the match commentary. Next, the computer makes the draw for the six groups of four teams. At the end of the first round, the top two teams from each group plus the four third placed teams with the best performance go through to the next round.



Before playing your first match, your scouts are able to supply you with a dossier of information on any four teams in the competition. The best strategy is of course to get knowledge of the other three teams in your section; for example, do they use a sweeper system or do they

play the offside trap? Do they generally take short corners? Do they utilise man for man marking? It is your job to adjust your team's playing tactics to try and compensate for your opponents style of play. There is unfortunately only one list of opposing team players in memory, so no matter which country you are playing against, you will be up against megastar players such as Maradona, Sanchez, Laudrup, Jossimar, and Schumacher. The alternative is to change the opposing team players before every match, which is possible, but would take some time, not to mention extensive knowledge of foreign teams, or a handy book of foreign soccer players. It would however, make the commentary much more exciting.

Aside from keying in new player names, all other control is by the joystick; just move the cursor to the option you want and press the trigger. All of your team's games feature the commentary, but if your team gets eliminated in the first round, then the computer will continue to report the rest of the results through all the rounds until the final is reached. At the end of the tournament, the scores from all your matches are displayed together with your goalscorers and your managerial rating, and then you are prompted to play again. There is no need for a load/save facility as the World Cup is a knockout competition and the whole tournament does not take long to complete.

Although 'World Cup Manager' was available on disk and cassette, STV software have long since gone out of business, which means the game is now very difficult to get hold of. Perhaps it would now be considered a Public Domain game? This is a nice piece of software which any football fan would enjoy; the only problem is getting hold of it. If you find it, buy it!

A similar game to this one called ***World Cup 86*** was released by the author of 'Liverpool' in 1986, although it was less professionally programmed and used monochrome text screens like 'Football Manager'. It cost about eight quid and was available on cassette and disk. 'World Cup 86' puts you in charge of the England World Cup squad, but if you want to use a different team, simply list the Basic program and change the players' names in the data lines. This game is another which is quite difficult to find now, as it was only ever available by mail order.

## FOOTBALLER OF THE YEAR

One of the few games released for the Atari by Gremlin Graphics was ***Footballer of the Year***, which brought a totally new approach to computerised soccer. It plays more like a conventional board game than a computer game. You have a certain number of goal cards at your disposal, and you can play one of these to increase your chance of scoring in a difficult match. Also available are incident cards and transfer cards, all of which you have to pay for, but they are not always useful!

Although basically a managerial simulation, arcade elements are also utilised. You get the chance to take several shots at goal and the occasional penalty kick in most matches. The graphics in these sequences are not bad, with large, single coloured players which are much better than those in the later Kenny Dalglish game. The game lets you take part in league and cup competitions, and incorporates load and save features, but does not allow you to change the team or player names. The game was converted from the Spectrum / Commodore and in the process lost the title screen icons. The Atari version has a menu screen instead. The original price was eight pounds for the cassette and twelve pounds for the disk version, but it was re-released as a budget tape on US Gold's Kixx label in 1989 for only three quid, which is a reasonable price for a reasonable game. It is not outstanding, but worth a look.

## A REAL BOARD GAME ...

'Footballer of the Year' may have played a bit like a board game, but ***Brian Clough's Football Fortunes***, the third Atari soccer game of 1987, was a board game! The package, endorsed by the outspoken manager of Nottingham Forest (my favourite English team!) contains a small game board, cards, Monopoly-style money, etc., plus a computer program (disk or cassette) written in Basic which takes almost twenty minutes to load, but does include a nice hi-res title screen!

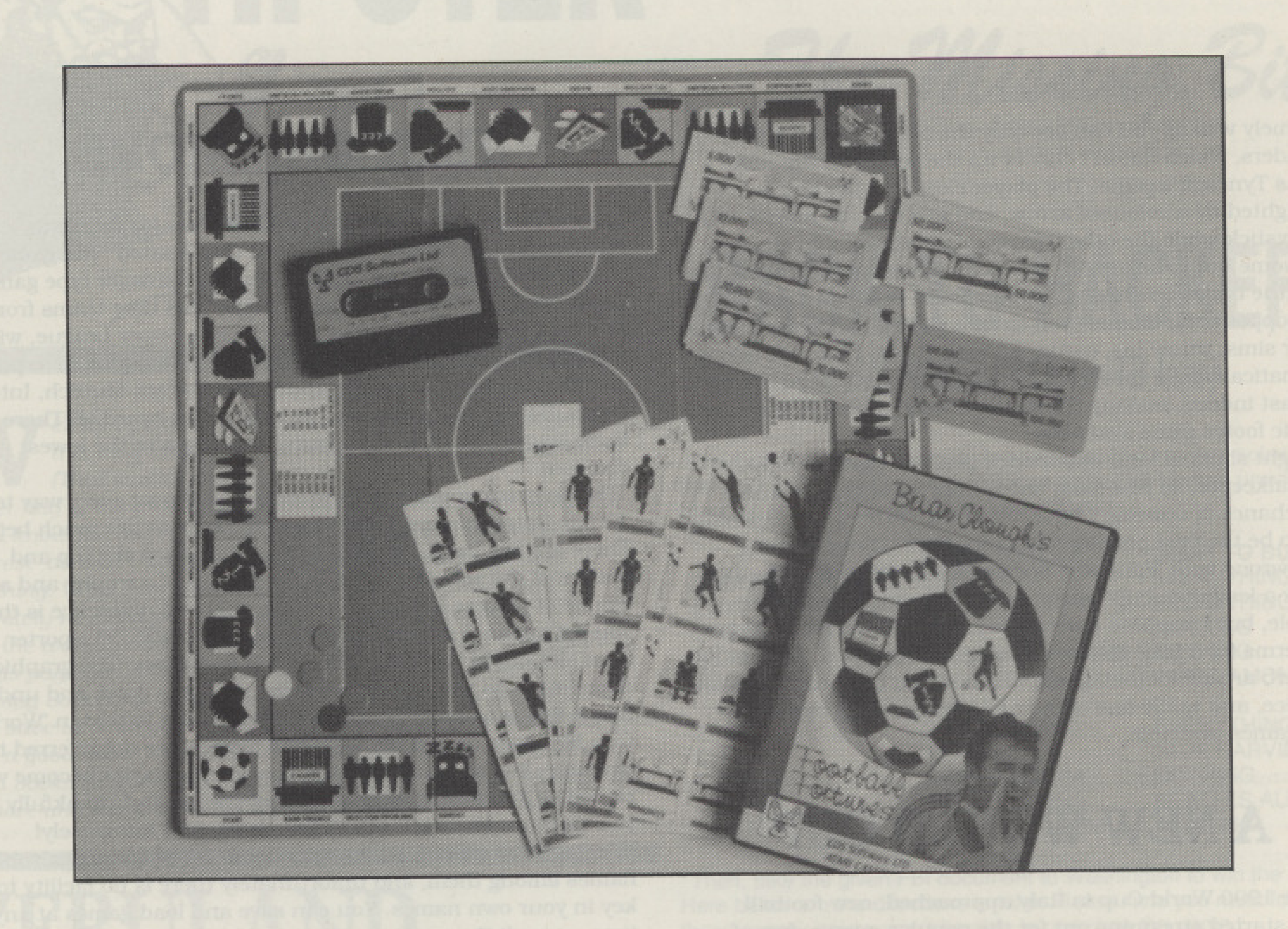
The game caters for two to five players, each of whom receives 11 player cards plus two substitutes, each of which has a value of between one and five points. Players move round the board by throwing the computer-dice, and opportunities such as player auctions, sponsorship deals, bank loans and injuries arise according to which square you land on. Once each manager has made his (or her!) move, the team strengths are entered into the computer, which 'plays' the fixtures based on each team's rating, but upsets can happen of course, as in real soccer! The managers collect gate money at the end of each match, and points are awarded for league position, Cup progress, and the state of your bank balance. Any number of seasons can be played through, with the winner being the person with the highest points total.

Overall, the game is a very enjoyable combination of computer and board games, with the only niggle being the slow processing of the league tables by the Basic program. Not a great piece of computer software, but a very good game nevertheless!

## OR DO YOU FANCY TABLE FOOTBALL?

The final football game of 1987 for the Atari was the very unusual ***Table Football*** from Alligata Software which was marketed on the Rino label for only two pounds. The game is a computer version of the old table top games which used plastic players operated by rods, and is very rare. It has in fact never been reviewed by New Atari User or even the old Atari User, which is a shame as it is a very enjoyable little game, especially in two player mode!

The computer allows you to move the 'rod' nearest the ball up or down or swivel it from side to side in order to kick the ball. You would think the ball is hard to miss, given the huge size of it, but this is not the case! The game is played at a brisk pace and is very entertaining; well worth a couple of quid if you can track it down. There has never been a soccer game quite like it, before or since!




## INTO EUROPE!

In 1988, the European Championships were held in West Germany, and Tynesoft's attempt to cash in on this resulted in a full price game called ***European Super Soccer***, although there was nothing very 'super' about the game. Tynesoft also seem to think that the USA is in Europe, (they have a team in the tournament) but never mind! The other teams include the United Kingdom (eh?), France, Netherlands, and Atari World. Not a mention of W. Germany, Italy, or the USSR! The game is supposedly for one or two players, but the two player option has never worked! Nice one Tynesoft.

The team colours can be altered before a game, but the choice is very limited; the first team's shirts are the same colour as the second team's shorts, and vice versa, which is just plain stupid. Why not have the first team's shirts and shorts one colour, and the second team's shirts and shorts the other? After this, however, things get even worse! The player graphics are blocky, poorly defined (given their size), and the scrolling and player movement is slow and jerky, which is not a good recipe for playability! The player being controlled is highlighted by a square cursor appearing around his square head. After a few minutes of this game, you'll be reaching for 'EMI Soccer' in despair! The one redeeming feature is the reasonable title music, but even if this game were to be re-released as a budget tape by Zeppelin (like most of Tynesoft's back catalogue) it would still be a waste of money, as many better alternatives are available. Happily, the author went on to write the classic shoot 'em up Zybex for Zeppelin!

## COME ON YOU SPURS!

## ENTER ZEPPELIN

Zeppelin Games have released no less than three soccer games to date, the first of which arrived in 1989. ***Kenny Dalglish Soccer Manager*** was endorsed by former Glasgow Celtic and Liverpool (then Liverpool manager) legend Kenny Dalglish, and introduced another innovation; a totally joystick controlled managerial game using icons and a pointer rather than keyboard commands. The main screen depicts a wide angle view of a football stadium with reasonably well drawn icon boxes superimposed on top. You just move the pointer to the desired icon (scout, bank manager, team selection, etc.) with the joystick and press the trigger to select it, which takes you to the appropriate screen.

Kenny Dalglish Soccer Manager is more detailed than the original 'Football Manager', containing all the features of the original (including load and save game), plus optional match highlights depicted with large clumsy player graphics. Sometimes the highlights are entertaining though; the players frequently bend the ball like a boomerang! The player names cannot be changed, and consist of many well known players plus a few of Zeppelin's programmers. The original game was a full price release, but like many others, has been re-released at a budget price, which is more sensible for this type of game.

Zeppelin's other football game in 1989 was the modestly titled ***Fantastic Soccer***, which was the first (and so far only) vertically scrolling football game for the Atari. The pre-release rumours said that the game was 'as good as Kick Off on the ST', which of course it wasn't, but it came about as close as is possible on the humble eight bit! Once the superb title screen loads, you can choose a team, playing formation, and length of game, which ranges from ten to ninety minutes. There are only eight club names to choose from, including (naturally!) Newcastle United.

'Fantastic Soccer' is played on a pretty small pitch, which scrolls a little jerkily, viewed from directly above. This works

extremely well as you can see only the players' head and shoulders, which doesn't clutter up the screen in the same way as Tynesoft's game. The player closest to the ball is highlighted by a coloured arrow, and can then be moved with the joystick while the other players run around into strategic (and some not so strategic!) positions. Pressing the fire button kicks the ball when you have possession, or if you are running at an opponent it enables you to do a sliding tackle. As in most soccer sims, throw ins, corner kicks and goal kicks are taken automatically by a computer controlled player. Speed of play is very fast indeed, making 'Fantastic Soccer' probably the most frenetic footer game available.

Straight shots at your opponent's goal are easily caught by the goalkeeper, so you must shoot from an angle to stand a good chance of scoring; I have found the corners of the penalty area to be the best positions to shoot from. The only thing really wrong with 'Fantastic Soccer' is that there is no facility to play a league or cup tournament, only single games are possible, but I suppose several players could work out their own terms for a little tourney amongst themselves. To sum up, a superb arcade football game which would be cheap at double the price, and easily one of the most entertaining two-player Atari games available.

# A NEW WORLD CUP

As the 1990 World Cup in Italy approached, new football games started streaming out for the popular micros, two of which made it onto the Atari XL/XE. Fortunately for us, two of the better ones! The first is ***Kick Off***, the Anco game which 'Fantastic Soccer' was based on. Unlike the ST or Amiga versions, the eight bit conversions, including the Atari, scrolled horizontally, which is strange, considering the fabulous success of 'Fantastic Soccer' as a vertical scroller. The price of 'Kick Off' was nine quid for cassette or fifteen for disk, making it the most expensive football game ever for the Atari, bar the old EMI cartridge. However, this one contained many features not found in any other Atari soccer game.

Getting the bad points out of the way first, the loading screen (using 'Technicolour Dream' for dozens of colours) is pretty dire, and the actual players resemble squashed jelly babies. All twenty two players are tiny single coloured blobs but they are all made from five hardware sprites, which is quite a programming achievement, despite the fact that sometimes the players (and the pitch) flicker, split in half or disappear completely!

The main menu offers an impressive range of options: practice skills (in which there is no opposing team on the field so you can practice passing, shooting, etc., for as long as you want), practice penalties (an arrow moves from right to left across the goalmouth and you press the joystick trigger to shoot), play a single match (against the Atari or a human opponent), or play a league competition. There are eight international teams to choose from, and five different game lengths ranging from five minutes each half to a full ninety minute match.

During play, not only do you get goal kicks and throw ins, but free kicks and penalties are given by the referee if he decides an infringement of the rules has been made! You can even control the way the ball swings when taking a corner kick and the player currently under your control flashes between black and white, which seems to work well. Overall, 'Kick Off' is the most detailed and realistic arcade soccer simulation available for the Atari, despite being primitive in the graphics department. A must buy for footer fans, particularly now that it is available as a budget cassette from Byte Back.

# JUST ONE MORE

Zeppelin Games third and final soccer sim (to date) was released just before the 1990 World Cup started. The game was ***World Soccer***, and it was another manager type game, again using icons and joystick control. This time teams from around the world are all put together in a Super League, with top English and Scottish clubs like Celtic, Rangers, Liverpool and Everton being joined by giants like Bayern Munich, Inter Milan, Barcelona, and some I've never even heard of! There are three leagues in all, and of course you begin in the lowest division.

The program appears to be identical in almost every way to 'Kenny Dalglish' except that the graphic icons are much better! There are five large, beautifully drawn icons at the top and bottom of the screen, with a lovely picture of a trophy and a couple of players in the centre. The only real difference is that you get optional match commentary from 'ZEP TV' reporter Joss McDonald instead of the match highlights. The graphics depicting Joss with his microphone are quite good, and underneath this is a scrolling match report similar to that in 'World Cup Manager' except the opposing players are not referred to by name, but by team number. The commentaries become very repetitive and boring after only a few games, but thankfully you can turn them off, which speeds up play immensely!

The players in the game are imaginary, with no recognisable names among them, and unfortunately there is no facility to key in your own names. You can save and load games at any time, consult the scout, bank manager, change players, etc., as in the 'Dalglish' game which 'World Soccer' definitely improves upon, despite it being much cheaper.

# END OF SEASON?

To date, these are all of the football simulations available for the Atari and it is unlikely that any new ones will become available now.

If you are wondering which soccer games to buy for your XL or XE, I would highly recommend Kick Off (Anco), Fantastic Soccer (Zeppelin), Soccer (Alternative), World Soccer (Zeppelin), and World Cup Manager (STV) if you can find it. ●






# The Missing Bits?

*Well its that time again when I take over three pages of this mag and turn it into my own personal playground! (That's what you think! - Ed)*

*After half of my prophecies from the last issue didn't come true - you know the one's Mission Shark, Infiltrator, Hardball and the rest -all that I will say this time is that I can't promise anything. What I can promise is lots of cracking stuff and definitely no dead parrots or even ex-parrots to boot!*

*By the way if you look at the picture in the top left hand corner of this page you will see me reading in bed with a cup of Lapsing Souchong (echoes of the Gamesmaster coming in there, God save us from possessed Scots men! Nothing personal Dom.) and a good book. Now about that book. Does anyone know any good books as I've been reading this one for the past 18 months or more and don't seem to have got any closer to finishing it!*

# BACK TO HACKER

## (or HACKENBACKER for TB fans)

Roy Griffiths of Luton in Beds says that the Hacker solution that was published in Issue 52 was wrong so he has provided what he assures me is the correct solution.

| | WHAT TO GIVE | WHAT TO BUY |
|---|---|---|
| SWITZERLAND | £5000.00 | EVERYTHING |
| EGYPT | CHRONOGRAPH | EVERYTHING |
| GREECE | TUT | NOTHING |
| INDIA | EMERALD SCARAB | NOTHING |
| NEW YORK | DEED TO SWISS CHALET | 3 KT DIAMOND |
| TOKYO | 3 KT DIAMOND | EVERYTHING |
| CHINA | PEARLS | JADE CARVING |
| CUBA | 35MM CAMERA | NOTHING |
| LONDON | JADE CARVING | BEATLES ALBUM |
| SAN FRANCISCO | BEATLES ALBUM | NOTHING |

Then, take the given FBI document to Washington to win the game. Here below are the directions to take. Please note you must follow these exactly or you won't be able to complete the game.

| DESTINATION | DIRECTIONS |
|---|---|
| SWITZERLAND | 6E, 4N |
| EGYPT | 4W, 1N, 6E, 2S, 1E |
| GREECE | 1W, 1N, 1E |
| INDIA | 1E, 2N, 2E, 3S, 1E |
| NEW YORK | 1W, 3N, 16W, 1S |
| TOKYO | 6W, 1N, 14W, 2S, 5E |
| CHINA | 4W |
| CUBA | 1E, 3S, 2E, 1N, 4E, 1S, 2E, 1S, 2E, 1S, 8E, 3N |
| LONDON | 3W, 2N, 2W, 7N, 3E |
| SAN FRANCISCO | 3W, 2S, 12W, 1N, 1E |
| WASHINGTON | 1W, 1S, 10E, 2N, 2W, 1S, 3W |

# ZEBULAND

Now where is Zebuland? I don't know but some tips come from the other side of the Atlantic is right up near the arctic circel would you believe? That's where Ed Hall of Yellowknife in Canada lives and he has sent in all 50 level codes for ZEBULAND.

| | | | | |
|---|---|---|---|---|
| 1. ZEBU | 11. PLOP | 21. HEPP | 31. WEST | 41. XERO |
| 2. BLAP | 12. BEEP | 22. SUPP | 32. NORD | 42. FATZ |
| 3. ZOFF | 13. MOEP | 23. JUPP | 33. SUED | 43. GULP |
| 4. BONK | 14. UGLE | 24. ZSCH | 34. TOLL | 44. BAUF |
| 5. BAFF | 15. ZIPF | 25. PCHH | 35. MATT | 45. ONKO |
| 6. BING | 16. MONK | 26. YARG | 36. DOAD | 46. WAPP |
| 7. HOPP | 17. TOON | 27. SNAG | 37. HAHA | 47. LINK |
| 8. FLAM | 18. ZATZ | 28. GNOZ | 38. LOGI | 48. DRAG |
| 9. PENG | 19. BLOY | 29. NAJA | 39. DEPP | 49. AETZ |
| 10. BANG | 20. ARGH | 30. HUTY | 40. SACK | 50. HELP |

# ESCAPE TO TARG: MERCENARY 1

Also from Roy Griffiths is a solution to Escape to Targ: Mercenary 1

A) Buy Dominion Dart after you crash on Targ.
B) Fly to 09-06, get the SIGHT, ENERGY CRYSTAL, MEDICAL SUPPLIES, CATERING PROVISIONS. (N.B. go through transporter in the room with the MEDICAL supplies to get the PHOTON EMITTER)
C) Fly to 81-35, get GOLD and KEY (for COLONY CRAFT HANGER)
D) Fly to **-**, get WINCHESTER, and board the CONCORD craft
E) Fly to COLONY CRAFT (08-08). Sell WINCHESTER in LABORATORY, CATERING PROVISIONS in KITCHENS, MEDICAL SUPPLIES in INFIRMARY, GOLD in EXCHEQUER, ENERGY CRYSTAL in POWER ROOM. Get KITCHEN SINK
F) Fly to 09-06. Get COBWEB (with KITCHEN SINK, it will open all doors.) Get POWERAMP, Drop COLONY CRAFT KEY
G) Fly to 09-05. Get ANTENNA, NEUTRON FUEL
H) Fly to 03-00. Get ESSENTIAL 12939 SUPPLY, MECHANOID. (If wished, fly to **-** to get the DOMINION DART)
I) Fly to 11-13. Get USEFUL ARMAMENT
J) Fly to COLONY CRAFT. Sell MECHANOID in INTERVIEW ROOM, NEUTRON FUEL in ENGINE ROOM, 12939 SUPPLY in CONFERENCE ROOM, USEFUL ARMAMENT in ARMOURY
K) Fly to 09-06. Go to COMMUNICATIONS ROOM. Rent a spaceship. Fly to 08-08. Board ship and leave TARG! If you don't have any maps of the locations, do take the time to wander around TARG, if not for the sake of completing the game, then just to look about and enjoy the scenery and Paul Woakes' humour.

## FREE CASSETTES!

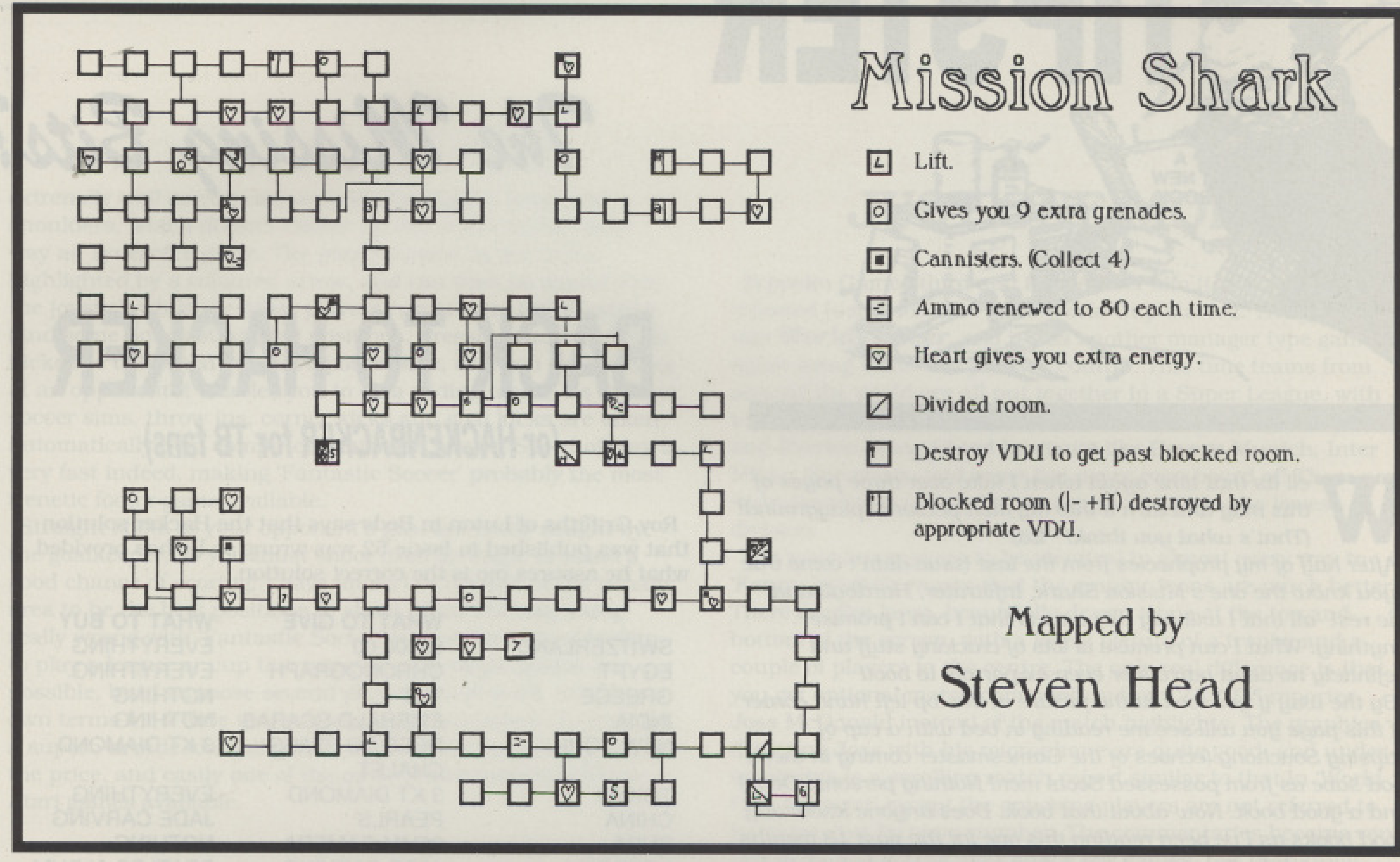
**If your hint, tip or map is used by The Tipster you can claim a FREE CASSETTE (from those currently available from The Accessory Shop) but you won't get one if you don't send something to The Tipster - get tipping now!**

## HOW TO CLAIM

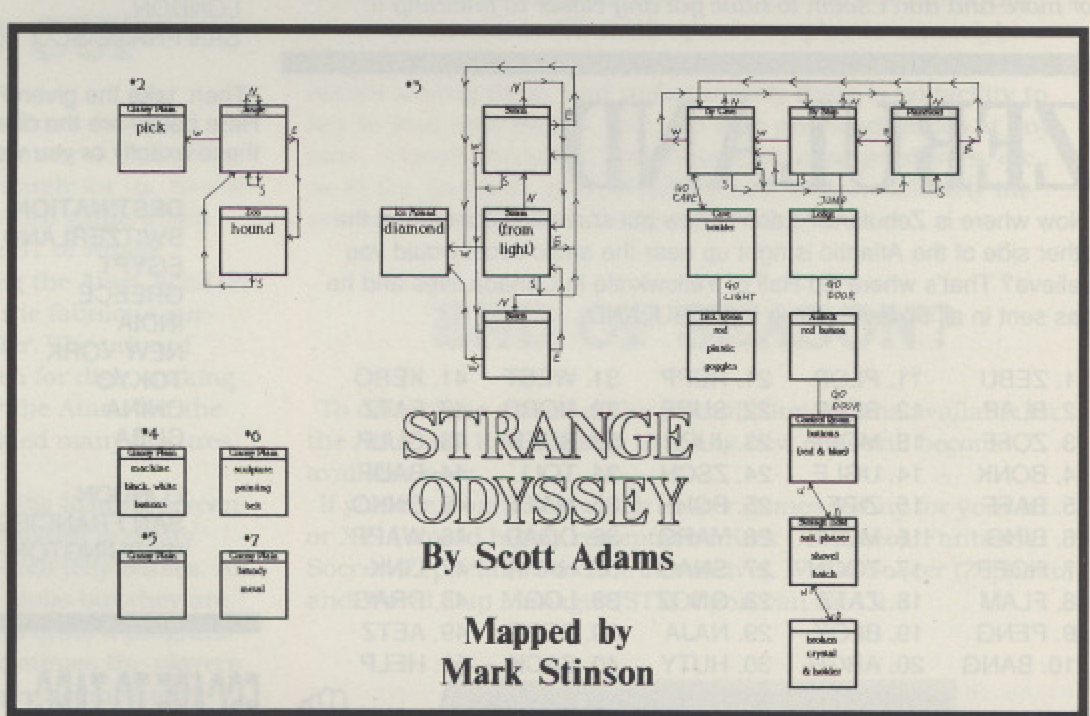
**If you see your name in this column just drop us a line and say 'My name is ..... and I claim my free Tipster cassette' and simply tell us which cassette you would like (give an alternative just in case). We will whip it off to you poste haste (or straight away). If you prefer you can always give us a ring instead on the usual number**



**NOW LOOK HERE**




# STRANGE ODYSSEY




You can't keep a good game down. Strange Odyssey by Scott Adams is one hell of an adventure that simply doesn't want to lie down and I don't blame it. Mark Stinson has mapped it and solved it quite comprehensively (thanx Mark). Please Note that DISC HOSE is short for DISCONNECT HOSE which doesn't fit on the entry position in the game.

# THE SOLUTION

D, TEG TIUS, TEG RESAHP, TEG LEVOHS, U, SSERP DER, OG ROOD, RAEW TIUS, SSERP DER, OG ROOD, PMUJ, W, OG EVAC, TES RESAHP, OT YORTSED, TOOHS REDLUOB, OG THGIL, TES RESAHP, OT NUTS, LLUP DOR, HCUOT CITSALP, HSUP DOR, LLUP DOR, HSUP DOR, HCUOT CITSALP, OG THGIL, GID, TEG KCIP, OG ELGNUJ, E, TOOHS DNUOH, TEG DNUOH, S, W, OG THGIL, LLUP DOR, HSUP DOR, HCUOT CITSALP, OG THGIL, PORD DNUOH, OG THGIL, TCENNOC ESOH, SSERP ETIHW, SSERP KCALB, CSID ESOH, OG THGIL, LLUP DOR, HSUP DOR, LLUP DOR, HSUP DOR, HCUOT CITSALP, OG THGIL, TEG GNITNIAP, TEG ERUTPLUCS, OG THGIL, PORD GNITNIAP, PORD ERUTPLUCS, ENIMAXE ERUTPLUCS, PORD RESAHP, PORD KCIP, RAEW SELGGOG, SSERP WOLLEY, ENIMAXE GNITNIAP, PORD SELGGOG, TEG TLEB, RAEW TLEB, LLUP DOR, HSUP DOR, HCUOT CITSALP, TSIWT ELKCUB, OG, THGIL, TEG YDNARB, OG THGIL, PORD YDNARB, OG THGIL, TEG LATEM, OG THGIL, PORD LATEM, TSIWT ELKCUB, PORD TLEB, TEG RESAHP, TEG KCIP, TEG LEVOHS, LLUP DOR, HCUOT CITSALP, HSUP DOR, LLUP DOR, HSUP DOR, LLUP DOR, HSUP DOR, HCUOT CITSALP, OG THGIL, W KCIP ECI, TOOHS DNUOH, TEG DNOMAID, TES RESAHP, OT YORTSED, TOOHS ECI, E, OG THGIL, LLUP DOR, HSUP DOR, HCUOT CITSALP, OG THGIL, TCENNOC ESOH, SSERP KCALB, SSERP KCALB, CSID ESOH, OG THGIL, LLUP DOR, HCUOT CITSALP, HSUP DOR, HCUOT CITSALP, PORD RESAHP, PORD KCIP PORD LEVOHS, TEG LATEM, KAERB DOR, TEG DOR, TEG GNITNIAP, OG THGIL, U, W, PMUJ, SSERP DER, OG ROOD, D, PORD GNITNIAP, PORD DNOMAID, PORD DOR, NEPO NCTAH, PORD LATEM, U, OG ROOD, SSERP DER, OG ROOD, PMUJ, W, OG, EVAC, OG THGIL, TEG YDNARB, TEG TLEB, TEG ERUTPLUCS, OG THGIL, U, W, PMUJ, SSERP DER, OG ROOD, D, PORD TIUS, TEG DOR, OG HCTAH, TUP DOR, U, TEG DNOMAID, TEG GNITNIAP, U, SSERP EULB, OG ROOD, SSERP DER, OG ROOD, PORD TLEB, PORD DNOMAID, PORD ERUTPLUCS, PORD GNITNIAP, PORD YDNARB, EROCS.

Well that just about wraps up the Odyssey apart from the fact that the map that's up there could help you keep your bearings

# HARDBALL



## THE ONLY QUICK E IN THIS ISSUE!

**From the frozen wastes of Ballinhassig of County Cork comes a little snippet from Kevin O'Donovan for POLAR PIERRE. He says that to get to the top of the third level there is a trap door just past the second shooter. To use it simply stand on the trapdoor and jump. You will land safely on the top of the flags.**

*Dave W. from Birmingham has been very, very busy. Not only has he come up with the most impressive dossier ever on Hardball (or indeed on any game) but he has also given us the rundown on Infiltrator. I doubt that there will be enoufgh room in one issue for both but you can be sure that anything missing will appear in the next issue (or the one after, or ...).*

Let's tackle Hardball. *(By the way do you stay up through the night to watch the TV program? It's excellent. Ed.)*

All those abbreviations can now be explained thanks to Dave with the lists below.

| | |
|---|---|
| **(W)** | Games won by relief pitcher |
| **(L)** | Games lost by the relief pitcher |
| **(S)** | Games saved by the relief pitcher |
| **(IP)** | Number of innings pitched |
| **(ERA)** | Earned Runs Averages (Pitchers mistakes) |
| **(HR)** | Home Runs made |
| **(AB)** | Number of times a batter has come out to bat |
| **(SB)** | Number of stolen bases made |
| **(RBI)** | Runs batted in (runs created with their hit) |

The ERA is the best measure of a pitchers capabilities followed by (S) The RBI or Ribbies are what the hitters covert mostly followed by AVG's and HR's

The following list of pitchers are for the All Stars, with their equivalents on the right.

| | | |
|---|---|---|
| LEARY | = | MOREHEAD |
| PRINCE | = | EULER |
| MENDOZA | = | LEMAY |
| COOK | = | JAMES |
| PEERS | = | WILLIAMS |

The other pitchers below all have different pitching styles

| | |
|---|---|
| Atkins (AS) | Tompkins (CP) |
| Estrada (AS) | Morlini (CP) |
| Frisiana (AS) | Baldwin (CP) |
| Oliver (AS) | Ross (CP) |
| Perez (AS) | Wright (CP) |

Pitching a different delivery each throw confuses the computer player, it is called *Dek-ing* by the Americans. Right hand pitchers can use *Curveballs* (in) to Right hand batters and sliders (in), curveballs (out) to left hand batters. Left hand pitchers can use *Screwballs* (in) to RH batters, all these with good effect!

Should the computer's hitters hit your pitchers deliveries regularly, change him for another with different styles, e.g. Mendoza for Perez, for the computer has locked on to Perez's four styles.

If you are on 3 no-balls (in the hole) against a good slugger, deliver the 4th central (down the alley) using a bullseye shot (no in, out, up or down) of a style different from the last delivery (Dek) or use the international walk option from the menu, and walk the hitter to 1st base instead of giving a home run chance run away. Do remember that players on bases already also move on. A rating below .3 is very good for a pitcher, while a rating of .300+ is excellent for batters.

Good home sluggers have a lower AVG and if you have previously loaded 2 or 3 bases before their turn, they usually grant you home runs (they require Moral Boosters!). Loading bases is made easy by taking your hit with a low swing, the ball will fly high enough to allow you even to reach 3rd base occasionally.

Holding the fire-button in on contact adds that punch, but should you think that the ball does not have the legs, release the button quickly and it usually falls short of a fielder. Swinging In or Out early or late can cause the ball to go deep outfield allowing bases to be stolen. Timing counts, too early or to late causes the familiar FOUL. Getting the timing right can send the ball "Ne'er to be seen again" especially if you catch a fastball.

This game must be in the American League due to its option for a Designated Hitter (DH). He replaces the pitcher when batting but does not field when the others do. You can change a runner on a base if he is slow with a pitch runner and use a pitch hitter at the later stages of the game to replace a weaker hitter. Substitutions made after the match starts cannot re-enter the game, changes made prior to the start can.

In fielding get into the habit of throwing to your nearest base, then to your targeted base, it is much quicker than a direct approach from deep outfield. 3rd base is the most important, runs are made from this base easily when a batter hits deep, so make this base your priority and don't forget to let go of the fire button to throw. The OF's can replace either CF, RF or LF's. Each have different throwing capabilities, swap and see.

***PLAYER OUT OF POSITION:-*** Each fielder has a nominated position to play in, re-positioning wrongly will make a receiving fielder freeze allowing your opponents to run home and steal at will. Left-handers are preferred for 1st and 2nd base due to 2nd and 3rd being to their right!! Short Stops (SS) are like Goalkeepers that stop or try to stop the very hard hits going out outfield.

Here are some Americanisms associated with the game:-

**Double Play:** 2 out in one pitch
**Charity Hop:** A bouncing ball that goes directly to a fielder
**A Butcher:** Is a fielder with a bad glove
**Up the Alley:** Hitting the ball between 2 fielders
**A Tweener:** A ball that is hit this way
**A Can of Corn:** Is a high flyer that is easy to catch
**A Bleeder:** Is a lucky hit that lands the hitter on base due to it bouncing badly
**A Beanball:** An accidental or deliberate pitch towards the batters head
**A Line Drive:** A ball hit hard and low
**A Ground-out:** Making a hit and being run out at 1st base
**To Take:** To take the ball past without playing for it
**An Assist:** It's a credit awarded to a fielder who has helped another in getting a hitter or runner out, whether it be a deflection or throw to base

*There you have the most comprehensive dossier on Hardball ever! Can't say I understood it all but if you have the game it will be a piece of cake (or should that be a real cookie?)*




Well that seems to be all the letters and other stuff for this issue apart from the pleading letters that are always welcome in the column (in a sort of way they are the life blood of this column). From Sutton In Ashfield comes a plea from Louise Wood. She keeps getting stuck on the final part of **GHOSTBUSTERS**. She zapps all the ghosts only to get flattened by the marshmallow man's feet at the end (she thinks it's the end) and she wants to know how to get through the doors (and the marshmallow man's feet) to finish the game.

Frank Cunningham needs some help in **ALTERNATIVE REALITY**. He needs the Gargoyles name to continue any further in the game. One of you at the back of the class there must know the answer.

Finally John Ho needs to know to complete the type in game **INDIAN GOLD** - come on be the first to send in a complete solution to a type in! *(Bill Halsall actually sent in a full solution with the listing so if The Tipster asks nicely I might let him have it! Ed.)*

I've got to go now, the old Brain is starting to shrivel and stagnate and I'm off on two weeks holiday to balmy Devon (whoo!)

I'll be back with a vengeance next issue and this means that you get no respite in the campaign for those golden tips that are needed to make this column the best. Don't forget you'll get a free cassette if your tip is used.

Usual address as usual (surprising that!)

**THE TIPSTER**
**NEW ATARI USER**
**P.O. BOX 54**
**STAFFORD**
**ST16 1DR**

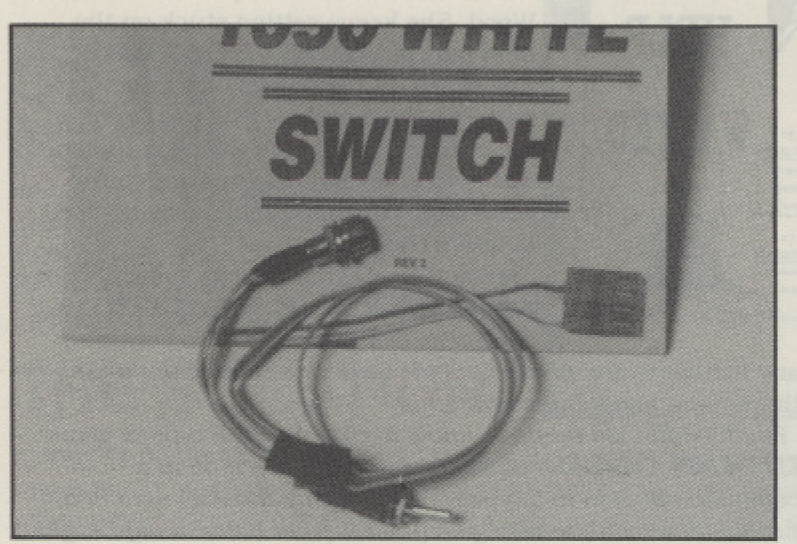
# TAKE YOUR PICK

## A roundup of a diverse batch of new products for the XL/XE

*One of the major supporters of the Atari Classic machines is Micro Discount of Birmingham who seem to scour the country looking for new products that might be of interest to 8-bit users. Several recently acquired products have been sent to us for review and since some of them can be described in just a few words it seems appropriate to combine them all as a 'mixed bag' with something of interest to everyone. Let's dip into that bag and see what we find.*

## 1050 WRITE PROTECT SWITCH

Most disk drive owners will know something, at least, of the write protect switches available which enable greater control over the drive. There have been several versions available over the years with slightly different functions but all are designed to make it easier to write to your disks or not, as the case may be.




This particular unit is a dual function switch giving either full protection from writing to disks or the ability to write irrespective of whether the disk itself is write-protected. The major use of such a switch is to enable users to format and use the reverse side of a disk without the need to cut a notch in the disk. With the switch fitted you need only put it in write mode - with the indicator light flashing red - and you can flip your disks at will. Of course you can also write to disks which have write protect tabs on. A flick of the switch to the opposite mode - with a steady green indicator - means that your disks are fully protected, they cannot be written to at all. It's as simple as that.

The switch comes as a complete unit that you have to fit to the drive yourself. The job is quite simple requiring just a couple of holes to be drilled in the casing (or you can fit an external switch box) and there is no soldering. Full instructions are provided and anyone with a drill and some practical ability can have the job done in no time.

A write protect switch is one of those things that, once fitted, you will wonder how you ever did without. There is a slight danger of wiping out your most precious disks but, in practice, this is unlikely to happen, and the advantages of ease of use far outweigh this risk. The write protect switch is good value at £7.95.

## ATARI DEMO CARTRIDGE

This is, perhaps, one of the most intriguing pieces of software you will come across since it was never actually on sale! The cartridge was produced in 1987 as a means for dealers to demonstrate the range of games available for the XL/XE machines and contains no less than three full games - JOUST, MS PACMAN and ONE ON ONE together with FLIGHT SIMULATOR II. These games are all Atari classics and have all been reviewed in the past so further explanation is not needed. One very interesting aspect of this cartridge is the way it selects the games, you switch on the machine and the first comes up, switch off and on again and the second comes up and so on. How does it know?

Four great games on one cartridge priced at £18.95 is good news but the disadvantage is that the cartridge comes without instructions for any of the games. As it was never issued for retail sale there was no packaging or manuals. As far as Joust and MS Pacman go this does not really matter since they are easy to pick up. One on One is a little harder but can still be worked out but, without instructions it is doubtful whether you will fly very far with FS2!

If you haven't got these games yet and fancy something unusual then the DEMO cartridge should prove to be interesting.

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*The products in this review are all available from Derek Fern at Micro Discount whose advertisement you will find elsewhere in this issue.*

## SEAL 'N' TYPE

One of those products that do not fit into any category is this protective cover for your keyboard. Made of 'transparent, flexible, durable, tactile, non-discolouring quality polymer' this overlay simply fits over your keyboard covering all of the keys and function buttons. The cover is specifically moulded to fit the 65XE or 130XE and is taped into position along the top and front edge. Once in place you carry on using your machine in the normal way with almost full protection from coffee spills and total protection from dirt and grime.

You may think that using a keyboard with a plastic cover over it would be awkward but, surprisingly, it makes very little difference to the feel of the keys. The material is so pliable and moulded to the individual keys that the only difference in feel is a slight softness to the keys. In all other respects, use of the keyboard is as if the cover were not there.

If you have ever opened up a keyboard you will have been shocked to find the amount of dust, dirt and grime that accumulates and there is no doubt that a protective cover will stop this but how important this is will be up to individual preference. The price of a cover for the XE models is £9.95 plus £1.50 to cover the postage, not particularly cheap, so you will need to judge just how essential a cover is to you.

## PRINT LAB

With so little software for the 1029 and 1020 printers available I am tempted to say just buy this anyway, at £5.95 for a unique utility for you printer you can't go far wrong. Print Lab is a development from a program originally issued as a bonus on one of New Atari User's issue disks and has been substantially upgraded for commercial release. If you want a more detailed explanation of the basic functions check out Issue 48.

Print Lab is a Graphics Mode 8 screen designer with the ability to print your designs on the Atari 1029 or 1020 printers or any Epson compatible printer. As well as normal drawing tools there is a choice of fonts for text which can be inserted on the screen in a variety of sizes. The latest version of the program includes 10 extra fonts giving quite a variety. Designing a screen involves simply drawing your design using tools such as circle, line plot and pixel plot and then adding whatever text you require in your choice of font. The design tools are fairly basic but there are extra utilities that enable you to design icons on a 20 x 20 grid that can be imported into your screen and you can also cut sections from other 62 sector format pictures for use as icons. Once a screen is complete you save it to disk ready for printing.

The printout is a standard size depending on the printer you use but the position of the image on the paper can be adjusted and there is an option on the 1029 to print three Print Lab screens consecutively, thus creating more complex and larger designs. On the 1020 you can choose which colour to print in, although there is no allowance for mixing colours within a particular image.

Print Lab certainly works well (that's why it was initially selected as a NAU bonus) and can be highly recommended for owners of the 1029 or 1020. Other printer owners might like to give it try as well. Although not as sophisticated as the (few) commercial desktop design programs available it represents good value for money.

# CUTTHROATS




***Mark Stinson gets excited over deep sea diving in one of the classic Infocom adventures***

Cutthroats, another masterpiece of innovation from the masters of adventure themselves, Infocom, features you as a top class diver searching for sunken treasure. The adventure level is classed as standard, and is second in the 'True Tales of Adventure' series, the other two being Seastalker and Infidel. This series has been my own personal favourite because of its setting in the world of 'high adventure'; not that I am totally averse to a moderate sprinkling of horror, magic, mystery and science fiction every now and then!

The packaging is up to Infocom's usual high standard, comprising: a True Tales of adventure magazine, disk, instructions, nautical supply list, and an historical publication by Hardscrabble Harbor Historical Society, entitled 'Four Shipwrecks off Hardscrabble Island'. As always, the adventure has lasting appeal, and a real sense of participation, because of these small touches. I found it especially exciting to read through the shipwrecks book, which shows the believed location of four wrecks off the island. Each wreck is given a brief history, and the unfortunate ships in question are the Sao Vera (1698), HMS Intransigent (1745), Fianna (1887) and SS Leviathan (1916). The True Tales of adventure magazine is also entertaining and amusing, as well as informative.

## YOU ARE AWOKEN ...

The story begins in your room at the Red Boar Inn on Hardscrabble Island. There is a knock at the bedroom door which turns out to be a character named Hevlin. Hevlin has dropped in unannounced in an effort to cajole you into looking after his book on shipwrecks. The book has new locations marked for two of the famed wrecks off Hardscrabble Island. After a successful bid, he leaves the notebook in your care, and as you flick through its pages you smile to yourself knowing that so many people have looked for those wrecks without a penny to show for it. The smile is only wiped from your face when you witness Hevlin's murder as he walks down the street outside your window. Somehow, you know there is more to this little treasure hunt than one man's over active imagination...

The following morning you awake to find a note from Johnny Red, an associate and central character in the plot. The note asks you to attend a meeting at the Shanty, the islands local bar. You will soon notice that your watch is suffering from old age and abuse, and is completely useless unless wound first thing in the morning. Depending upon how quickly you leave for the Shanty, you may meet the weasel, a thoroughly nasty character who can often be seen looking furtive and up to no good; don't trust him! Once at the Shanty you get to meet the central cast of characters: Johnny Red, the weasel, and Pete the rat (who gained his nickname through his choice of dish while a cook on another ship).

## TIME TO EXPLORE

Greetings over, a further rendezvous is decided upon, and after testing the local cuisine you are able to explore the island. The island is quite small, with most of the interesting areas at its north end. At the north end can be found the Wharf, the Red Boar, the lighthouse, McGinty's Salvage, Outfitters International, and the Shanty. To the south of the island is the mariners trust, where you may obtain your cash. By now, you will most probably have met up with McGinty, who is the 'J.R.' of Hardscrabble Island, and owner of the disreputable McGinty's Salvage. My only advice is avoid him and if contact is inevitable, keep quiet. McGinty is shrewd and notices everything.

When you finally make your next meeting with the gang, you will be shown one of two objects - a coin or a plate. Examining either of these, in conjunction with your notebook will identify which wreck you are to look for. After an indication of your acceptance, you agree to a further meeting with Johnny. You will also need to withdraw a sum of money before your next meeting. Having withdrawn your life savings and met again with Johnny, you pay a visit to the Outfitters International. You must now decide which equipment is necessary for the job (depending upon the depth of the wreck) while Johnny organizes the ship.

## FULLY EQUIPPED

Once all of the necessary equipment is ordered, you can wander about again while waiting for the high tide (check out the tide tables on the back of the equipment list). Timing is very important in Cutthroats, so it is advisable to make a note of certain characters movements during the game. Eventually you arrive at the ship which is docked at the Wharf. You now wait for the arrival of the delivery boy with all your equipment, and after him, the crew. Now is the time for your map reading skills! Before you can set sail, Johnny will need to know the longitude and latitude of the wreck. Once you have informed Johnny of the location, it is advisable (in fact unavoidable) that you get some sleep.

Before long you are woken by Johnny, and realize that this is the moment of truth, now is the time to kit up and dive. If you have bought the wrong equipment, or if you use it incorrectly, you will meet a cold and watery end. It is at this point that the real puzzles are put before you, especially when you try to negotiate the shipwrecks.

## DIFFERENT WRECKS

As I have mentioned, there are two different ships to dive at, each with different puzzles and treasure. I especially enjoyed negotiating the SS Leviathan on board which, amongst other good puzzles, I had to avoid a live mine which was blocking an exit. Once you have solved all of the ship's puzzles, and retrieved the treasure, you have to negotiate a crew which harbours a cutthroat. Was it all in vain? As there are ten points left to get, you just know there is a solution to this problem, somewhere!

I thoroughly enjoyed cutthroats. Indeed, of the fifteen Infocom adventures I own (only three of which are solved) this is my all time favourite. I have only one complaint, and that is the random selection of the shipwreck to dive on. I spent three quarters of an hour trying to generate the Leviathan version, after completing the Sao Vera!

*Availability - my copy was obtained from Miles Better Software for £9.95 plus postage but stocks may be low so check around wherever you can. CUTTHROATS is also available on the ST*

### HINTS AND TIPS

**MY ROOM IS RANSACKED WHEN I'M OUT, WHAT CAN I DO?**
esu ruoy yek

**MCGINTY PREVENTS ME FROM HIRING A SHIP**
peek teiuq dna tel ynnhoJ laed htiw eht rettam

**I CAN'T FIND THE WRECKS**
edutignol dna edutital sgnidaer era no ruoy koob (edisni tnorf revoc)

***ON THE SAO VERA***

**I BREAK THE LADDER ENTERING THE SHIP**
uoy tnod deen ti

**I CAN'T MOVE THE BUNKS**
esu eht ekip

**THE BUNKS FALL BACK WHEN I MOVE THEM**
egdew meht htiw eht ekip

**I CAN'T CARRY THE CHEST**
hsup ti hguorht eht oleh dna hcatta ti ot eht epor

**HOW DO I GET UP THE LADDER?**
uoy tnod, hsup eht larrab ot eht htron, dnats no ti dna tuc epor (htiw drows morf noteleks) - bmilc epor

**WHATS THE MACHINE FOR?**
sti a latem rotceted!

***ON THE SS LEVIATHAN***

**HOW SHOULD I GET INTO THE DINING ROOM?**
hguorht eht eloh erehw eht enim si

**HOW DO I STOP THE MINE FROM EXPLODING?**
tup tengam neewteb sekips, nrut ti no, pord ti

**HOW DO I SQUEEZE THROUGH THE GAP?**
dloh knat elihw gnimmiws hguorht

**HOW DO I OPEN THE SAFE?**
llird ti

**HOW DO I STOP THE CASE FROM FILLING WITH WATER?**
ekat ti ot eht ria tekcop, llird ti ot niard retaw, riaper ti htiw yttup

**HOW DO I PREVENT MY MURDER WHEN FINISHING THE GAME?**
yap a tisiv ot s'ytniGcM retfa uoy evah thguob ruoy seilppus ta eht rettiftuo, tub ekam erus eh si tuo. retne raer wodniw, teg epolevne. edih ti rednu ruoy sserttam dna evig ti ot ynnhoJ ta eht evid noitacol.

# FIRST STEPS IN ASSEMBLY Part 2

I hope that you took in the various concepts in the last issue and are ready to expand your knowledge. Trying to cover Assembly language on the Atari in the space of a few magazine pages is not easy, after all whole books have been written about it, but I hope that there will be sufficient information to get you experimenting. Do be sure to study the program listings as these are, in many ways, more important than the text giving working examples of machine code programming. Try to understand exactly how each program works and you should be well on your way to creating your own routines.

Anyway let's start this issue with a little maths.

## ADDITION

**ADC** - *ADd with Carry* - adds a value to the accumulator, adds on the value to the accumulator and also adds on the value of the carry flag in the status register. This either has a value of 0 (no carry) or 1 (carry). e.g. if you add $10 and $10, the answer would be $20 if the carry flag was clear, however if the carry flag was set the answer would be $21. Note also that ADC can only do single byte addition. If the answer is greater than $FF then the carry flag is set to indicate this fact and accumulator indicates the rest of the answer. For example if you add $F0 and $25 (when the carry flag is clear) you get $15 and 1 in the carry flag i.e. $115. When there is no carry the carry flag is cleared.

ADC works in the following addressing modes:

*Immediate, direct, zero page direct, indexed direct, zero page indexed direct, pre indexed direct, post indexed direct*

To add 1 byte values it is best to clear the carry flag before addition otherwise results could be unpredictable - The instruction **CLC** - *(CLear Carry)* - is used for this purpose. There is an opposite command to set the carry flag too .. that is **SEC** - *(SEt Carry)*.

*Example of addition:*

```
LDA $0600
CLC
ADC 20
STA $0600
```

This little routine loads the value in $0600 and adds to it the value in location 20 with the result then stored in $0600. The carry flag will be set if a carry has occurred.

The carry flag can be used for 16 bit addition i.e. addition of numbers from $0000 to $FFFF as below.

```
LDA FIG1      ; Figure 1, low byte
CLC           ; Clear Carry
ADC FIG2      ; Add Figure 2, low byte
STA ANS       ; Store at ANSwer, low byte
LDA FIG1+1    ; Add high bytes
ADC FIG2+1    ; No CLC so if Carry Set
STA ANS+1     ; then extra 1 added
```

The carry flag indicates a final bit in case the answer is greater than $FFFF. This can be added to the routine to deal with that eventuality as follows.

```
LDA #0
STA #0        ; If carry = 1 then one added
STA ANS+2     ; and stored
```

## SUBTRACTION

**SBC** - *SuBtract with Carry* - is the command for subtraction. SBC uses the same addressing modes as ADC. The carry flag also is used in this instruction but it is used to indicate if any borrowing is required and works the opposite way to ADC i.e. 0 = borrow, 1 = no borrow. The effect of the carry being clear is to subtract one extra. A set carry flag causes no extra subtraction.

*Example of 1 byte subtraction:*

```
LDA $0600
SEC
SBC 20
STA $0600
```

***Daniel Lea continues his series to introduce you to machine code - it starts getting more complicated but stick with it!***

*Example of 16 bit subtraction:*

```
LDA FIG1
SEC
SBC FIG2
STA ANS
LDA FIG1+1
SBC FIG2+1
STA ANS+1
```

*The extra bit*

```
LDA #0
SBC #0
STA ANS+2
```

If a borrow has occurred ANS+2 will contain 255 otherwise 0.

### SCROLLING THE RAINBOW

Remember the rainbow program in the last issue? You can make the colours scroll using ADC or SBC and the timer location 20. This location increments (increases by 1) every 50th of a second. Simply add the following lines

```
55 CLC
56 ADC 20
```

Or to make them move in the other direction

```
55 SEC
56 SBC 20
```

Easy!

### INCrement and DECrement

**INC** - Increments a memory location e.g. INC DOODA
**DEC** - Decrements a memory location e.g. DEC DOODA

These take up less processor time than the equivalent routine as follows:

```
LDA DOODA LDA DOODA
CLC or SEC
ADC #1 SBC #1
STA DOODA STA DOODA
```

The X and Y registers can also be incremented and decremented the relevant instructions are:

**INX** - *INcrement X*
**DEX** - *DEcrement X*
**INY** - *INcrement Y*
**DEY** - *DEcrement Y*

## FLAGS AND BRANCHES

Now that you have an idea of the basic maths commands, let's go back to the status register again for a while to discover other commands that affect maths processing.

There are four arithmetic ***FLAGS*** in there (flags are registers which can either be true or false, 1 or 0):

***Zero flag*** - Tells if a number is zero or not, indicated by Z. Z=0 if zero, Z=1 if non-zero.

***Sign flag*** - (N) N=1 if negative. Simply reflects the high order bit (i.e. the eighth bit of a result).

***Carry flag*** - (C) We know all about this one (we should anyway!) C=1 if there has been a carry or no borrow. C=0 if there has been no carry or a borrow.

***Overflow flag*** - (V) reflects the seventh bit of a result (that's the full extent of my knowledge of this flag, never use it myself!)

What use are all these flags? Well they are used by the Branch instructions which are rather like the IF.. THEN GOTO... in Basic. Here is a list:

**BCC** - *Branch if Carry Clear*
**BCS** - *Branch if Carry Set*
**BEQ** - *Branch if EQual to zero*
**BNE** - *Branch if Not Equal to zero*
**BMI** - *Branch if MInus*
**BPL** - *Branch if PLus*

*also*

**BVC** - *Branch if oVerflow Clear*
**BVS** - *Branch if oVerflow Set*

If you notice you can group them into pairs depending on which flag is used.

***continued*** ☛

The Branch statements use a different addressing mode called relative addressing .. they require only one byte after the instruction because it tells the branch where to go RELATIVE to where it is. It can jump backwards and forwards because it uses a special representation of numbers called 'two's complement notation'.

The two's complement of a number (which must be less than 128) is found by complementing each bit i.e. reversing each bit, and then adding one. For example, in binary:

| | |
|---|---|
| positive number (91): | 01011011 |
| complemented bits: | 10100100 |
| add 1: | 10100101 |
| negative number (-91): | 10100101 |

The negative counterpart has the important property (even though it is really a positive number) of acting as though it is a negative number if you ignore the carry flag. e.g. if you add the two numbers you get 0 and 1 in the carry flag (which is ignored). Therefore it is just the same as 91+-91 which is zero.

Because the branch statements use this notation it means the maximum jump forward is 127 bytes and backward 128 bytes. If you break these limits the assembler will give an error.

One final point, after telling all about two's compliment notation is that you don't actually need to understand it with assembler at all because you can use labels with the branch instructions so the assembler does all the work for you! Interesting to know about though.

## COMPARING

The branch statements are made even more useful by using the compare instructions. These are:

**CMP** - *CoMPare accumulator*
**CPX** - *ComPare X*
**CPY** - *ComPare Y*

These work with Immediate, direct and zero page direct addressing modes.

*Example:*

CMP $0600

Compare the accumulator to a value stored at address $0600.

How it works is that the processor pretends to perform a subtraction from the value of the accumulator. The actual value in the accumulator is unaffected but the result is that the status flags of carry, zero, and sign are affected as if the subtraction had occurred and hence can be acted on by the branch instructions.

## BRANCH STATEMENTS IN ACTION!

Now how about some programs to show you how to use the branch statements? Well then try Listing 1 - a memory clearer and Listing 2 - a memory block mover. These won't do much by themselves, however they are highly useful subroutines. For instance you could use them to redefine a character set, or in the setting up of player missile graphics.

Listing 3 - a joystick music player - is a not a very useful routine but is interesting because it works on its own. All these routines are heavily annotated so I don't need to tell you much more about them here. All use the zero flag branch statements (BEQ and BNE).

***Listing 1 - clearing a block of memory***

```
10 ;
20 ;-----------------
30 ;COPY RAM by DJL
40 ;JAN 1992
50 ;-----------------
60 ;
70 ;note : no need to type in all the
80 ;comments unless you want to!!
90 ;
0100 ;
0110  *=$0600      ;start address
0120 ;
0130 ;
0140  LDA FROM     ;load low byte of from
0150  STA 203      ;store in page 0
0160  LDA FROM+1   ;load high byte
0170  STA 204
0180  LDA TO       ;store to
0190  STA 205      ;in page 0
0200  LDA TO+1     ;locations
0210  STA 206
0220 ;
0230 ;
0240  LDX LEN      ;load x with length
0250 ;
0260 LOOP1  LDY #0    ;reset Y
0270 ;
0280 LOOP2  LDA (203),Y ;load byte
0290 ;from the address indicated by
0300 ;203 and add Y to that address
0310 ;
0320        STA (205),Y ;store in
0330 ;address indicated by 205, +Y
0340 ;
0350        DEY   ;decrement Y
0360        BNE LOOP2 ;branch back to
0370 ;loop2 if Y is not zero.
0380 ;so whole page will be copied
0390 ;otherwise (page copied) next line e
 xecuted
0400 ;
0410        INC 204 ;Increment to
0420        INC 206 ;next page
0430 ;the above 2 lines set the pg 0
0440 ;pointers onto the next page by
0450 ;incrementing their high bytes
0460 ;
0470        DEX  ;decrease X by 1,
0480        BNE LOOP1 ;if X is not 0
0490 ;ie the required no. pages
0500 ;haven't been copied then branch
0510  RTS ;return from the subroutine
0520 ;Done ok
0530 ;
0540 FROM .WORD $9C40
0550 TO   .WORD $9E40
0560 LEN  .BYTE $02
0570 ;Values for where to copy FROM,
0580 ;TO, and the LENgth of data to
0590 ;copy in PAGES ie. how many 256
0600 ;byte chunks.
```

**_Listing 2 - Moving blocks of memory_**

```
10 ;
20 ;----------------
30 ;CLEAR RAM by DJL
40 ;JAN 1992
50 ;----------------
60 ;
70 ;note : no need to type in all the
80 ;comments unless you want to!!
90 ;
0100 ;
0110  *=$0600      ;start address
0120 ;
0130 ;
0140  LDA ADDR  ;load the VALUE
0150 ;of the low byte of the address
0160 ;
0170  STA 203     ;store the VALUE in
0180 ;Page 0
0190  LDA ADDR+1 ;load high byte value
0200  STA 204
0210 ;
0220 ;
0230  LDX LEN     ;load x with length
0240  LDA #0      ;Value to clear with
0250 ;
0260 LOOP1  LDY #0    ;reset Y
0270 ;
0280 LOOP2  STA (203),Y ;store byte
0290 ;in address indicated by 20
0300 ;and add Y to that address
0310 ;
0320 ;
0330         DEY    ;decrement Y
0340         BNE LOOP2 ;branch back to
0350 ;loop2 if Y is not zero.
0360 ;so whole page will be cleared
0370 ;otherwise (page cleared) next
0380 ;line exexuted
0390 ;
0400         INC 204 ;Increment to
0410 ;next page
0420 ;the above line sets the pg 0
0430 ;pointer onto the next page by
0440 ;incrementing the high byte
0450 ;
0460         DEX   ;decrease X by 1,
0470         BNE LOOP1 ;if X is not 0
0480 ;ie the required no. pages
0490 ;haven't been cleared then branch
0500  RTS ;return from the subroutine
0510 ;Done ok
0520 ;
0530 ADDR .WORD $9C40
0540 LEN  .BYTE $04
0550 ;
0560 ;Values for LENgth of clear in
0570 ;pages
0580 ;A Page is a 256 byte chunk of
0590 ;memory
0600 ;also a value for the ADDRess to
0610 ;clear from
0620 ;
0630 ;WARNING don't set LEN to 0...
0640 ;if you do this the computer
0650 ;will crash
```

## MORE COMPARISONS

The carry flag branch statements (**BCC** and **BCS**) can be used to see if a number is greater or less than another e.g.

```
LDA NUM1
CMP NUM2
BCC LESSTHAN GREATERTHANOREQUAL ; label
......
......
LESSTHAN                        ; label
......
......
```

If NUM1 is LESS than NUM2 then LESSTHAN is branched to. If NUM1 is greater than or equal to NUM2 then no branch occurs and execution continues with the instructions GREATERTHANOREQUAL executed. If you wish, the fact that the figures may be equal can be caught by using BEQ EQUAL - EQUAL Being another subroutine.

**BMI** and **BPL** can used in maths programs where the twos complement notation is used since the MSB indicates the sign. Or possibly if you want to know if a subtraction has resulted in a positive value - the carry flag is probably better for this purpose.

Do type in the programs because they may help to make clear the uses of what we have learned so far. Anyway if you have kept up, and understand everything so far then you are doing very well.

Next issue, binary mathematics ... bet you can't wait!... bye!!

**_LISTING 3 OVERLEAF_** ☞

```
10 ;
20 ;------------------
30 ;JOYSTICK DETECTOR
40 ;By DJL. JAN 1992
50 ;------------------
51 ;
52 ;this code is fully relocatable!
53 ;
60 AUDCTL=$D208
70 AUDF1=$D200
80 AUDC1=$D201
90 JOY=632
0100 ;
0110   *=$0600
0120 ;set up sound chip
0130   LDA #0
0140   STA AUDCTL
0150   LDA #3
0160   STA 53775
0170   LDA #$AF
0180   STA AUDC1
0190 START LDA JOY ;read the joystick
0200   CMP #14    ;if 14
0210   BEQ UP     ;branch to up
0220   CMP #6     ;if 6
0230   BEQ UPRGT  ;branch to up-right
0240   CMP #7     ;if 7
0250   BEQ RIGHT  ;branch to right
0260   CMP #5     ;if 5
0270   BEQ DOWNRT ;branch down-right
0280   CMP #13    ;if 13
0290   BEQ DOWN   ;branch to down
0300   CMP #9     ;if 9
0310   BEQ DOWNLT ;branch to down-left
0320   CMP #11    ;if 11
0330   BEQ LEFT   ;branch to left
0340   CMP #10    ;if 10
0345 ;
0350   BEQ UPLT   ;branch to up-left
0360 ;the following is executed if no
0370 ;joystick value read
0380 ;
0390 NOMOVE LDA #0 ;black out screen
0400   STA 710
0410   LDA #0     ;turn off sound
0420   STA AUDF1
0430   CLC        ;clc to force
0440   BCC START ;a branch
0450 UP LDA #$10
0460   STA 710
0470   LDA #$10
0480   STA AUDF1
0490   CLC
0500   BCC START
0510 UPRGT LDA #$20
0520   STA 710
0530   LDA #$20
0540   STA AUDF1
0550   CLC
0560   BCC START
0570 RIGHT LDA #$30
0580   STA 710
0590   LDA #$30
0600   STA AUDF1
0610   CLC
0620   BCC START
0630 DOWNRT LDA #$40
0640   STA 710
0650   LDA #$40
0660   STA AUDF1
0670   CLC
0680   BCC START
0681 ;
0682 ;following 2 lines give an extra
0683 ;branch because last few
0684 ;branches are out of range of
0685 ;start
0686 ;
0690 START2 CLC
0700   BCC START
0701 ;
0710 DOWN LDA #$50
0720   STA 710
0730   LDA #$50
0740   STA AUDF1
0750   CLC
0760   BCC START2
0770 DOWNLT LDA #$60
0780   STA 710
0790   LDA #$60
0800   STA AUDF1
0810   CLC
0820   BCC START2
0830 LEFT LDA #$70
0840   STA 710
0850   LDA #$70
0860   STA AUDF1
0870   CLC
0880   BCC START2
0890 UPLT LDA #$80
0900   STA 710
0910   LDA #$80
0920   STA AUDF1
0930   CLC
0940   BCC START2
```

***Listing 3 - A Joystick Music Player***

# BANKSWITCHING

## David Manlove explains how to gain extra memory without modifications looking first at the memory behind BASIC and the OS banks

On the Atari XL and XE models there exist shadow banks of memory that allow the user to access extra 'hidden' RAM. Bank switching techniques can provide the user with the space behind BASIC (8K) and/or the OS (14K) for storing data. This data could be in the form of extra character sets, graphics screens for arcade games or text for adventure games for example. The bank switching techniques are not difficult to master and the rewards are available for exploitation by both machine code programmers and BASIC programmers. This has to be one of the most profitable of the advanced programming techniques.

All memory bank operations on the XL and XE computers are controlled by memory address $D301 (54017) which is now a write address as well as a read address. The extra memory banks behind BASIC and the OS take the form of 'shadow' blocks of memory - the normal area of memory is in place when the computer is in its normal state. When location $D301 is suitably changed the relevant block of memory is switched with the extra underlying shadow block to exactly the same locations (the shadow blocks are usually filled with zeros on power up but this is not always so). Then if $D301 is changed back the normal ROM bank then exchanges with the shadow bank, with the shadow bank contents not being reset but remaining under the ROM for when $D301 is next altered.

## THE 8K BLOCK

There are two methods of accessing the extra memory: the 8K behind BASIC (from locations $A000 to $BFFF) and the 14K behind the OS (from locations $C000 to $CFFF and $D800 to $FFFF, the locations from $D000 to $D7FF not being available for write). The 8K bank is selected by altering bit 1 of $D301. When bit 1=0, the 8K block is normal BASIC ROM. When bit 1=1, the shadow RAM block takes BASIC's place. The user attempting to POKE in the required value from BASIC in order to access this bank will find that the computer crashes due to his having de-selected BASIC! So if the 8K bank is to be used from BASIC it follows that the shadow bank should be BASIC also. This is achieved by copying BASIC (from $A000-$BFFF) down to RAM locations such as $4000-$5FFF, turning on bit 1 of $D301 in order to turn on the shadow 8K block, and then copying BASIC into this RAM area $A000-$BFFF from low memory. This obviously has to be carried out using machine code.

So what is the advantage in de-selecting BASIC only to select BASIC again? The answer is that the shadow BASIC is RAM so it allows the user to change BASIC at will. Type in, SAVE and RUN Listing 1 which copies BASIC and the OS into the shadow banks (i.e. the user now has a RAM BASIC and a RAM OS). Now clear Listing 1 and type in, SAVE and RUN Listing 2 (there is a small delay) which provides the user with some alterations to Revision C Atari BASIC. Any or all of these can be used by typing in the relevant lines. The READY sign and error message are changed and statements and operators now change to capital first letter and small subsequent letters (e.g. "Goto" instead of "GOTO"). Type "List" after RUNning to see what I mean. These alterations are a demonstration as to what can be achieved, however even the actual operation of BASIC could be changed. For instance you could add a patch to the statement handler that runs your machine code program when RUN is entered.

Using the 8K block for non-BASIC purposes is probably more useful. This is exactly what happens when the computer is turned on with Option pressed - the computer automatically sets bit 1 of $D301 for the user, allowing arcade games to take up even more memory. Of course, as these games are machine

```
EX 1 REM ####################################
RF 2 REM # BANK SWICTHING - Listing 1 #
QX 3 REM # Instal a RAM BASIC/OS      #
GR 4 REM # by David Manlove           #
RV 5 REM # NEW ATARI USER OCT 1992    #
FC 6 REM ####################################
AY 10 REM
YB 40 FOR I=0 TO 103:READ A:POKE 1536+I,A
   :NEXT I
SC 50 A=USR(1536)
YU 60 END
CI 70 DATA 104,162,0,189,0,160,157,0
SQ 80 DATA 48,232,208,247,238,5,6
GA 90 DATA 238,8,6,173,5,6,208
YV 100 DATA 234,8,32,73,6,162,0
QY 110 DATA 189,0,48,157,0,160,232
JI 120 DATA 208,247,238,31,6,238,34
ET 130 DATA 6,173,34,6,240,17,201
PJ 140 DATA 208,208,230,169,216,141,34
OJ 150 DATA 6,169,104,141,31,6,76
SJ 160 DATA 27,6,165,203,141,14,212
EW 170 DATA 40,96,173,14,212,133,203
CG 180 DATA 169,0,141,14,212,120,173
ZA 190 DATA 1,211,41,254,9,2,141
HO 200 DATA 1,211,96,173,1,211,73
PD 210 DATA 3,141,1,211,96
```

```
EX 1 REM ##############################
SN 2 REM # BANK SWICTHING - Listing 2 #
DB 3 REM # Alterations to RAM BASIC   #
GR 4 REM # by David Manlove           #
RV 5 REM # NEW ATARI USER OCT 1992    #
FC 6 REM ##############################
AY 10 REM
CI 40 REM CHANGE READY SIGN
EO 50 FOR I=48499 TO 48503:READ A:POKE I,
   A:NEXT I
ET 60 DATA 249,228,225,229,210
ML 70 REM ALTERNATIVE ERROR MESSAGE
AU 80 FOR I=42485 TO 42492:READ A:POKE I,
   A:NEXT I
OH 90 DATA 70,65,85,76,84,33,58,160
BT 100 REM LOWER CASE STATEMENTS
GI 110 X=42146
ET 120 C=PEEK(X):IF C=0 THEN END
CR 130 POKE X,C+(32*(C>64)*(C<91))+(32*(C
   >192)*(C<219)):IF C>128 THEN X=X+3
ZD 140 X=X+1:GOTO 120
YZ 150 REM LOWER CASE OPERATORS
JI 160 X=42982
FD 170 C=PEEK(X):IF C=0 THEN END
XN 180 POKE X,C+(32*(C>64)*(C<91))+(32*(C
   >192)*(C<219)):IF C>128 THEN X=X+1
CU 190 X=X+1:GOTO 170
```

code they do not require BASIC, and BASIC does not need to be copied down and back up as before. So utilising this bank is a useful technique for machine code programmers. The technique can, however, also be used by BASIC programmers as Listing 3 shows. This utility will load in any data file up to 8K long and place it behind BASIC. Then at any time during your BASIC program the user can load back in part or all of this code to a pre-specified area of low memory (i.e.$0000-$9FFF). This could save the user up to 8K of RAM. For instance, in a 30-screen BASIC arcade game the screens could all be stored behind BASIC and then one could be loaded into screen memory as needed, since one would only be required at a time. This would save a remarkable amount of memory.

In order to use Listing 3 the data must simply be stored on disk in a file which has no headers or footers and contains just the data. The filename is specified on RUNning the program and the data is installed behind BASIC (NB. the data need not be 8K long, but if it is longer than 8K then it will be truncated). Then the user is ready to build his own BASIC program around this. When some or all of the data is required the user simply puts "GOTO 1000" or "GOSUB 1000" and sets the parameters. At the moment these have been left in the form of input statements. LOC controls where the data is to be loaded to in low memory (32768 is an example value). OFFS controls the page number (starting from 0) of how far into the code to copy from. For example, putting OFFS=2 will make the program copy from byte no. 512 of the file onwards down to low memory. PAGE controls the number of pages (i.e. blocks of 256 bytes) to copy, so with a 5K file loaded in behind BASIC and LOC=24576, OFFS=3 and PAGE=2 the program will copy bytes 768-1279 down to locations 24576-25087 upon GOSUB 1000.

# THE 14K BLOCK

Installing a RAM OS is harder to achieve since the OS is required 50 times per second by interrupt vectors, so de-selecting the OS will cause the system to crash at the next vertical blank. Therefore, we need to copy the OS down into low RAM such as $6000-$9FFF, cancel all interrupts by setting NMIEN to 0 (54286) and giving a machine code SEI instruction, alter $D301, copy back up to all regions except $D000-$D7FF and then clear NMIEN to its original value. The bit of $D301 that controls the OS selection is bit 0: when bit

```
EX 1 REM ##############################
TV 2 REM # BANK SWICTHING - Listing 3 #
XW 3 REM # Instal Code Behind BASIC   #
GR 4 REM # by David Manlove           #
RV 5 REM # NEW ATARI USER OCT 1992    #
FC 6 REM ##############################
AY 10 REM
UY 40 GRAPHICS 0:DIM F$(15)
IB 50 FOR I=0 TO 93:READ A:POKE 1536+I,A:
   NEXT I
TD 60 ? "ENTER FILENAME":INPUT F$
LG 70 OPEN #1,4,0,F$
KF 80 A=USR(1536):END
JP 90 DATA 104,32,76,6,162,16,169,7
AT 100 DATA 157,66,3,169,0,157,68
KO 110 DATA 3,169,160,157,69,3,169
TR 120 DATA 0,157,72,3,169,32,157
RO 130 DATA 73,3,32,86,228,162,16
VX 140 DATA 169,12,157,66,3,32,86
QB 150 DATA 228,32,85,6,96,104,32
EV 160 DATA 76,6,162,0,160,0,177
AA 170 DATA 203,145,205,200,208,249,230
SL 180 DATA 204,230,206,232,224,4,208
OV 190 DATA 238,32,85,6,96,173,1
BE 200 DATA 211,9,2,141,1,211,96
DZ 210 DATA 173,1,211,41,253,141,1
KL 220 DATA 211,96
QZ 1000 REM THE LOADER SUBROUTINE
AW 1010 GRAPHICS 0
RE 1020 ? "ENTER LOCATION TO MOVE TO";:IN
   PUT LOC
BI 1030 ? "ENTER PAGE NUMBER TO START AT"
   ;:INPUT OFFS
MV 1040 ? "ENTER NUMBER OF PAGES TO MOVE"
   ;:INPUT PAGE
SU 1050 POKE 203,0:POKE 204,160+OFFS
LS 1060 POKE 205,LOC-(INT(LOC/256)*256):P
   OKE 206,INT(LOC/256):POKE 1605,PAGE
VT 1070 A=USR(1584):END
```

0=1 the OS ROM is selected. When bit 0=0 the 14K shadow RAM block is selected.

The reader will appreciate from the above that it is impossible to use completely the 14K block for data AND access the OS at the same time for, say, screen clearing operations or arithmetical operations. However there are two alternatives. One is to use the full 14K for data and only access the block for the split second that it takes to copy the data into low memory (for instance adventure programmers could store all the screen text behind the OS and then switch off the OS, copy the relevant text into low memory, switch the OS back on, and then print the text). Machine code programmers could alter Listing 3 to do this and hence yield even more memory for programs (I used this technique for my "OLD-COMMAND" utility in issue 53).

The second option is to use a RAM OS in conjunction with your code, i.e. the user only fills those areas which he is sure the OS will not require. This should be done with great care as the system could crash if critical code is overwritten. Two relatively safe areas are the international character set from $CC00-$CFFF (1K) if this is not required, and the floating point area from $D800-$DFFF (2K) if NO arithmetical operations are carried out whatsoever. It should be noted that working in a RAM based BASIC or OS environment is dangerous in that a slack POKE command could cause the system to lock up and programs could be lost. This is why I have not included a handler in Listing 1 to reinstall the RAM BASIC/OS every time Reset is pressed. Also I recommend saving all programs before making such alterations.

RUN Listing 1 again which sets up a RAM based OS. Now type in, SAVE and RUN Listing 4 which provides some alterations to a RAM OS. The graph pad screen is easily set up by poking directly to the hardware character set. The program also alters

```
EX 1 REM ################################
VD 2 REM # BANK SWICTHING - Listing 4 #
QI 3 REM # Alterations to RAM OS      #
GR 4 REM # by David Manlove           #
RV 5 REM # NEW ATARI USER OCT 1992    #
FC 6 REM ################################
AY 10 REM
ME 40 REM CHARACTER SET ALTERED
MU 50 FOR I=57344 TO 57350:POKE I,1:NEXT
   I:POKE 57351,255
VE 60 REM CHANGE DEFAULT COLOURS
RP 70 POKE 64266,238:REM BCKGRND COLOUR
QQ 80 POKE 64265,0:REM TEXT COLOUR
BC 90 POKE 64268,52:REM BORDER COLOUR
UC 100 REM CHANGE KEY CLICK SOUND
LT 110 POKE 63876,60:REM TRY ANY VALUE
PR 120 REM CTRL 4-0 FUNCTION KEYS
XK 130 FOR I=1 TO 7:READ A,B:POKE 64337+A
   ,B:NEXT I
MA 140 DATA 152,28,157,29,155,30,179,31,1
   81,125,176,126,178,127
KQ 150 GRAPHICS 0:END
```

the default screen colours, changes the key click sound and sets up function keys on CTRL 4 to 0. The advantages in altering the OS in this way rather than poking the shadow page 3 registers are that there may not be page 3 registers for some of the alterations. Also the alterations are semi-permanent (i.e. they remain until Reset is pressed or the computer is cold started). On pressing Reset all the alterations to the OS will be immediately reinstated by entering POKE 54017,254.

There is no limit to what can be achieved using Bank Switching and as is usual with Atari Computers the real power of the machine lies beneath the surface with little or no manual explanation as to how to access it.

Next issue I shall be looking at the 130XE's special bank switching which yields the full 128K.

# CONTRIBUTIONS

# FAME ...

## thrills ...

## and a few bob in your pocket!

*Why not turn the love of your Atari into a few pounds to spend as you wish? Lots of people have done so by getting something published in NEW ATARI USER and they have also experienced the thrill of seeing their name in print. There really is something special about opening up a magazine and finding something that you have written all nicely laid out with your name at the top!*

We pay for articles and programs on the following basis

**£50** for the 'star' program listing each issue

**£25** for all other listings published

**£50** for the DISK BONUS program, if used on its own

**£50** or more for multi-page articles

**£25** for a single page article or review

plus other sundry payments for various items published

## WHAT SHALL I WRITE ABOUT?

Programs for the XL/XE can be on almost anything, as a scan through past issues will reveal. We are short of good arcade games though and love stuff in machine code but Basic is fine if the game is good.

As for articles, the main aim is to write about something you really know about. Chances are that if you have discovered something that interests you enough to write about it, it will interest others as well.

All programs must be submitted on disk if possible. Cassettes will be accepted but we can't guarantee that they will load, so the risk is yours. Articles should be submitted as text files on disk wherever possible with printed copy if you have a printer.

We are not really fussy about presentation, as long as the programs or articles are well written, but the easier you make it for us, the better chance that your work will be published. We work on close deadlines each issue and there is nothing worse that to select a really good looking program only to find that we can't figure out how to use it because the author didn't write up the instructions!

We can't guarantee that we will use every item submitted and we can't write back with reasons for not selecting certain articles or programs, but a lot do get published, as our regular contributors will know, so give it try.

***Send YOUR contributions to***
**THE EDITOR, PAGE 6,**
**P.O. BOX 54, STAFFORD, ST16 1DR**

# THE RISE... THE FALL

A s I was considering writing this article, one thing kept nagging at me from the back of my mind. This thought eventually emerged in the form of the question "Won't I be stating the obvious?". However, after some thought I decided that what is obvious to me may not be apparent to others, and as I picked up my pencil I decided that if I included some of my personal Atari history, the resulting article should make interesting reading for all.

## STARTING YOUNG

I became an Atari enthusiast at the age of 11, way back in 1982 (if memory serves correctly). That Christmas my brother and I received a 16k Atari 800, 410 cassette deck, and basic cartridge. We had been considering a computer for some time and knew that the Atari was head and shoulders above anything else available, so you can imagine our delight when we unwrapped it on Christmas day! Since that point there has been no turning back.

I remember vividly how, on that Christmas day, I was set the task of typing in a magazine listing while my father and brother went to collect my Gran. The listing was a game called 'Submarine Hunt' from Computer & Video Games magazine, and I still have it to this day. Does anyone else remember it? Anyway, I hammered away excitedly at the keyboard, taking an age to find each key, when after managing three or four screens worth, I accidentally hit SHIFT-CLEAR instead of SHIFT-ZERO. The screen blanked, without so much as a 'READY' prompt to reassure me! Almost panicking, I hit the SYSTEM RESET key, knowing that this would restore the 'READY' prompt, and thinking that I had lost my work I began typing the listing from the start! I worked flat out so that my father and brother wouldn't know what had happened, and I'm sure that's the main reason my typing skills developed so quickly - it seemed like a matter of life and death! I eventually completed the task, saved it to cassette, and typed 'RUN' - and our first game was up and running. The computer stayed on until late that evening!

*by Karl Fitzhugh*

Several days later, as I worked my way through the manual, I discovered that I had merely cleared the screen, and that the program was still in memory. At the time, a simple 'LIST' command would have confirmed this! Therefore I had unnecessarily typed in four screens of program that was already in memory! Ah well, there's nothing like learning the hard way - I'm sure many of you had similar experiences.

Over the months that followed, my brother and I keyed in many magazine listings, and also purchased a few commercial games. I began to experiment with programming - changing programs which we had typed in, and trying out every last item in Atari's 'I/O' magazine. My attempts were often in vain, but I had well and truly got the bug.

## BECOMING A PIRATE

I think it was around 1985 that I started to do the whole Atari scene a great wrong, unknowingly at first. This wrong took the form of copied software. I make no attempts to justify what was done, but I will try to explain why it was done. My school friends were beginning to get computers, of all different types, and boys being boys it was a real competition to see who could have the latest, the best, and the most games. A paper round didn't pay for much original software (there was no budget software in those days) so piracy seemed like the only option. A few originals were bought when they could be afforded, but by no means were there many. It was, however, around 1986 when things began to get really out of hand. I bought an 800XL with 1050 disk drive, and a whole new world of copied software opened up to me. Disks were so much better than cassettes; they held loads of games, they always loaded, and they were easy to copy (once cracked by 'pros' such as Rob C, Glenn the 5200 man, Kilroy, and others). My collection of copied software grew enormous, just for the sake of it - I didn't even use a lot of the software.

Over this period, several other things also happened. My best friend Alec Pack became an Atari enthusiast after purchasing an Atari 400. We also had the good fortune to become friends with another Atarian, Bob Askew (Hi Bob!). Bob was already programming in assembly language (his brother Graham is the author of Mastertronic's 'Powerdown'), and was kind enough to pass on the knowledge he had as he gained it. Many of you

may know Bob's name from the sadly defunct 'Monitor' club magazine - he was a regular contributor. Page 6 saw Graham's 'Gangsters' game listing (issue 12), and also his 'Supply Blaster' (issue 14), so you may know him too. Track down these excellent listings if you can - they are still good today.

## THEN AN AUTHOR

As my own programming skills developed, and after writing several programs in Basic, I began work on a 100% machine code game. My first attempt came to a dead end after about 3 weeks, but I immediately set to work on another. Programming in the evenings and weekends, and also having to make time for homework, meant that the going was slow, but after 2 or 3 months I began to realise that there was a large possibility I would end up with a commercially viable game. I pressed on and sure enough, about 9 months after I had started, I had a finished game. I contacted several software houses, and the game was finally published by Atlantis Software. Some of you may own it (hopefully!) - the game is 'Periscope Up!'.

## BUT WHY BOTHER?

You may wonder why I am telling you all of this (I'm not showing off, honest!), but the reason is very, very important. Becoming a software author with a game published made me realise just how severe a crime piracy is. I tried to imagine how I would feel if I saw people with pirated copies of my game. Just as important, how would the software house feel in the same situation? The answers are quite obvious. If I saw that people weren't even willing to reward my 9 months of hard work by parting with £1.99 for an original version, I was not likely to spend another 9 months writing another game. I am not talking about the financial rewards, as no-one gets rich from the royalties on a budget cassette release, but about the personal reward - satisfaction, and getting the feeling that it was worth it. As for the software house, if they don't sell enough to make publishing the game worthwhile (they have to make at least a small profit to be able to stay in business) they are not going to publish any more. You should all recognise this as the truth; after all, how many games have been published this year by Mastertronic, Players, Kixx, Atlantis and the like (not to mention the all-but-forgotten full price software houses). And where are the classic Atari authors like Frank Cohen, Jon Williams, Philip Price & Gary Gilbertson, and William Mataga (to name but a few). I think this speaks for itself.

The Atari 8-bit is now a minority machine, yet through Page 6 the dedicated owners have a central point. This could be a tremendous advantage, as it gives us all the opportunity to rally round and support the Atari scene. I know it has been said before but WE MUST take that opportunity, each and every one of us. Unless we REALLY support those people who are trying hard to support us, we will lose them all. We have lost too many already, so we must act now - it really is our last chance.

## BECAUSE IT MATTERS

So what can you actually do? Believe it or not, each and every one of us can make a difference. If everyone has the attitude that "one order from me won't make any difference" then our suppliers will go under. If we all realise that "one order from me, together with everyone else's, WILL make a difference", then they will survive. It's as simple as a change in attitude. These people rely on us to keep them in business, and we should reward their commitment by supporting them wholeheartedly. So look back through your pirated software and buy the originals of the ones you like or use. Subscribe to Page 6 so that they have confirmation of your support. Write to Page 6 with letters, articles and programs so that they have the material they need. Subscribe to Excel disk magazine; Robert Stuart wants to carry on but is not getting enough support to do so - lets give him that support. Buy software from KE-Soft, Miles Better Software, and the Page 6 Accessory Shop. We all know that money is tight, but Atari 8-bit software has never been cheaper. For example, Page 6 offer 10 budget cassettes for just £9.50 - that's 95p each! They also have ROMs from £3.95, books from £1.50, and loads more besides. Miles Better have masses of disk software from just £2.99, and loads of cassettes and ROMs too - and many of the titles can't be found elsewhere. Micro Discount and Gralin International have many specialist titles on offer - again, some very rare software is available. At these prices, the software is worth buying just for the sake of having it in your collection - and each purchase buys a little more time for the Atari 8-bits.

## EVEN THE ST!

While we're at it, this can also be applied to the ST scene. Trade sources claim that original software reaches less than 10 percent of the user base, and I can confirm that this is true - I work for a software house. Before long I can see the ST arriving at the old 8-bit situation, where publishers fail to release finished games because everyone has pirated beta-test versions already - it simply isn't worth it in that situation.

I don't enjoy preaching the rights and wrongs of this world, but I felt things needed laying out plainly for all to see. The Atari 8-bit community can go in two directions - we can sit back and watch support for our machines die, or we can come together as a community and support each other. The future really is in our hands - lets all join in to make sure it is long lived.

# ... but not the end?

# FONT AND DISPLAY

**_Designing character sets can be a real chore but with the right utility and routines anyone can produce some stunning games. Steve Lakey starts you off with an easy to use editor_**

Designing a character set, also known as a font, can be a very tedious task. Armed with pencil and graph paper you begin by setting out an 8 x 8 grid with binary bit position values written above each column. Then moving along each row, you add up the binary bit position values that your design occupies, and the totals become your character data (See Fig. 1). Repeating this for a whole font of 128 characters would take ages and be prone to error.

The common method of using fonts in a BASIC program is first to put the character data into DATA statements, then to POKE the data into RAM (this should start on a 1K boundary). After storing the base page of your newly loaded font in location 756, you are ready to display your characters using PRINT. If you have only restyled your font, rather than redesigned, then this method is okay, but imagine what would happen if you had a background picture that used all 128 characters. Using PRINT to display this would be a nightmare and invariably lead to a display full of incomprehensible images.

To solve these problems I have written an editing program (LISTING 1), that not only lets you design a full font in a choice of two graphics modes, but also lets you design a display in a similar way to an art package, plotting characters rather than dots of colour. The display can, if you wish, be scrolled in four directions. This is probably of more interest to machine-code programmers, who have more memory at their disposal. Having said that, it is quite possible to use scrolling displays, up to a size of about four screens, in a BASIC program, more if the program is kept small.

I will also be presenting a program to enable you to include font and display data in your BASIC programs in the form of a sub-routine and in following issues there will be an INVADERS style shoot-em-up with a background showing just what can be designed plus a well commented game using redefined characters and introducing a number of game routines that you might wish to use in your own programs.

**_Fig. 1 - A New Letter A_**

Bit Position Values

| 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 | Totals |
|---|---|---|---|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 126 |
| 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 66 |
| 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 126 |
| 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 66 |
| 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 66 |
| 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 66 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

To begin with you may just wish to design a new looking alphabet or maybe you'll want to design a display for a game. If it is for a game, you don't have to design a picture-like display as in the INVADERS game, you could just design some platforms and ladders, then use the design part of the editor to set the layout. Once you understand how to create new character sets, the only limit is your imagination!

## USING THE EDITOR

You load the disk version by switching on with OPTION held down, whereas the tape version uses both START AND OPTION.

Once the main screen has appeared you should see a menu bar at the top, a message window, an 8 x 8 design grid and a character line showing a portion of the current font. These items are detailed below.

## THE MENU BAR

This contains four options, CHARACTER, MODE, DESIGN and I/O (Input/Output). The current option flashes and can be changed with the SELECT key. A press of the START key will execute the option. In most cases an option can be aborted with a press of the joystick trigger, but should be pressed fairly quickly to avoid altering the design grid. An explanation of each option follows:-

***CHARACTER*** - Pressing < and > changes the current character in the design grid and updates the character line. You can also use these keys when not using this option, but the

# EDITOR

advantage of using the CHARACTER option is that the original design of the character is displayed in the message window. This is useful when noting down the characters that have been re-defined.

***MODE*** - This will give you a choice of four display modes

1: Normal (40x20)
2: Horizontal scrolling (1-10 screens)
3: Vertical scrolling (1-10 screens)
4: Combined Scrolling.

Mode 1 is a standard non-scrolling display and is the default on loading and system reset. Mode 2 enables a horizontally scrolling display and likewise mode 3 a vertical scrolling display. Mode 4 enables both types of scrolling. As the screen limit is ten you should, when using mode 4, use a combination of vertical and horizontal display sizes that when multiplied, do not exceed this limit (e.g. 5x2, 3x3, 2x5, 5x2). If an incorrect value is entered you will be prompted to enter the amount again. All entries, correct or incorrect, are usually accompanied by an audible tone that should be ignored. If you wish to use one of the scrolling modes then it should be set up before you enter the DESIGN option.

***DESIGN*** - Here you are given two choices

1: Begin designing
2: Change mode.

The mode choice refers to the graphics mode, and toggles between GRAPHICS 0 and GRAPHICS 12. As GRAPHICS 12 is more suited for designing it is used by default.

***I/O*** - This is fairly straightforward except for a couple of points. Disk users should only include the main file name (e.g. DISPLAY.SCR). When saving display data your design will be shown and you will be prompted to Move To Line Then Press START. At this point you should use the joystick and, if applicable, the cursor keys, to move the pointer to the line you wish your design to be saved down to. For example, moving down to line nine will save all display data down to, and including, line nine. Your current line is indicated.
The form of the saved file is seven bytes of information, followed by the actual data. The information is Length Low-byte, Length High-byte and five bytes of colour information, to be stored in locations 708 - 712. Tape files are stored in short-IRG format. An example of loading a file can be found in a later listing.

## THE MESSAGE WINDOW

All prompts and messages are displayed here. Pressing and holding OPTION will cause a list of key commands to be scrolled through the window.

## THE DESIGN GRID

In either GRAPHICS setting the principal is the same, move the cursor around the grid using the joystick, setting and clearing character data with a press of the trigger. When using GRAPHICS 12 (Default), you have to treat the grid slightly differently. The computer finds out which colour to use by examining your character data. It does this by dividing your data into four columns each two bits wide (See Fig. 2).
Fig. 2 shows the four possible combinations that two binary digits can contain. The keys to change the colour registers represented by these bit patterns are also detailed. When

***Fig. 2 - Colours in Graphics 12***

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Design Grid line** | | * | | * | * | | | |
| **The computer views as** | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 |

**Bit Pattern 00 = Background = Key 4 = Location 712**
**Bit Pattern 01 = Colour 0 = Key 0 = Location 708**
**Bit Pattern 10 = Colour 1 = Key 1 = Location 709**
**Bit Pattern 11 = Colour 2 = Key 2 = Location 710**

***continued***

## THE PROGRAM

The editor program is made up of three separate listings which, if printed in the magazine, would take up eight pages. Apart from the immensity of typing in such a listing without error, we did not feel that a program listing which might not be of interest to everyone should take up that amount of space and so the listings are on this issue's disk and also available separately on cassette.

### CASSETTE USERS

The editor program is available from NEW ATARI USER in a ready to run format on cassette. For your copy send £1 to cover the cost of the cassette and postage to PAGE 6, P.O. Box 54, Stafford, ST16 1DR or order by telephone on 0785 213928.

### DISK USERS

The three parts to the program are on this issue's disk which can be ordered in the usual way, see the DISK BONUS section in this issue.

Disk users will still have to create their own autoboot disk to run the editor, as follows.
Take a blank disk to use as your DESIGNER autoboot disk. This disk should be formatted in DOS 2.5 or another ATARI DOS, and have DOS files written to it. Now LOAD and RUN the program FONT1.BAS from the Issue 58 disk. If everything goes well then you will be prompted to load and run part two - the program FONT2.BAS, and finally part three - the program FONT3.bas. When part three runs successfully you will be prompted to prepare the DESIGNER disk for recording. On completion of the recording you will get an ALL FINISHED!! message and you are now ready to load the editor.

using GRAPHICS 12, the computer needs two bits to access colour information, therefore, to convert a GRAPHICS 0 alphabet into a multi- coloured GRAPHICS 12 alphabet, you have to split the standard eight bit character width over two characters (See Fig. 3). Try entering the designs into the editor, viewing your progress in the character line.

This sacrifices a further 26 characters and reduces the number of characters per line from 40 to 20. It is therefore more practical to design GRAPHICS 12 text small enough to fit into a single character, as shown in Fig. 3. These are quite difficult concepts to grasp, but become easier with practice. If you tried the examples in Fig. 3, you probably noticed that the design grid gets quite confusing as more data is entered, you should therefore continually review your progress with the character line.

## CHARACTER LINE

This line is displayed in the current graphics mode and has the current character highlighted by an arrow. The line also uses the current design screen colours.

## KEYS AVAILABLE ON GRID SCREEN

| | |
|---|---|
| **SELECT** | = Choose Option |
| **START** | = Execute Option |
| **0 - 4** | = Change Colours |
| **Shift+Control+Space** | = Restore Original Font |
| **F** | = Fill a Grid Line |
| **D** | = Delete a Grid Line |
| **< or >** | = Next Character |
| **C** | = Copy a Character |

Key C copies character data from the current character to the new character and then the new character becomes the current character.

## THE DESIGN DISPLAY - ENTERED FROM THE DESIGN OPTION

On entry you are presented with a blank design area of dimensions 40 x 20. Below this is an information window containing current coordinates, an INVERSE mode indicator, an ERASE indicator and the current character, in its original design. Under the information window are four colour bars, corresponding to keys 0 - 3. It is worth pointing out that colours are updated more quickly on this screen.

You move about the display area using the joystick and your coordinates are updated as you go. Pressing the trigger will plot a character onto the display. If you have set up a scrolling display, then the arrow keys will scroll the display one character/line in the desired direction. Pressing [SHIFT] and an arrow key will scroll the display a screens length in the desired direction.

Pressing E will set the erase mode, which will cause a space character to be plotted at the current position when the trigger is pressed. It is obvious therefore that you should not alter the design of the space (blank) character, unless you specifically wish to.

Pressing I enters inverse mode, which means that in GRAPHICS 0 mode all characters will be plotted in inverse, but in GRAPHICS 12 mode, all colours in pen 2 (Bit Pattern 11) will be plotted using pen 3 (Key 3 = Location 711). Pressing S saves 40 characters from your current position, whilst D dumps these back to the display.

There is one other way of plotting characters to the display. This is done by entering TExT MODE with the SELECT key. In this mode you can plot characters to the display direct from the keyboard. You may move around using [CONTROL] + arrow and delete characters using Bk Sp. If using a display with horizontal scrolling enabled, then you should move a few characters into the display before typing, so that the text previously entered is visible. Press [CONTROL]+Bk Sp to leave TExT MODE.

## KEYS AVAILABLE IN DESIGN MODE

| | |
|---|---|
| **SELECT** | - Enter Text Mode |
| **START** | - Back To Design Grid |
| **0 - 4** | - Alter Colours |
| **Arrow Keys** | - Scroll a Character at a Time |
| **[SHIFT]+Arrow Keys** | - Scroll a Screen at a Time |
| **S & D** | - Save and Dump 40 Characters |
| **I** | - Toggles Inverse Mode |
| **E** | - Toggles Erase Mode |
| **< & >** | - Change Current Character |
| **[CONTROL]+[SHIFT]+[W]** | - Wipe Out Whole Display |
| **[CONTROL]+Bk Sp** | - Leave Text Mode |

Well, that's all there is to know about the FONT AND DISPLAY EDITOR, I hope you find it useful. My next program will show you how to include your font or display data in a BASIC program.

**Fig. 3**

***(1) Splitting a design over two characters.***

***(2) A more practical solution.***

**1**

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**2**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 |
| 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# contact ... contact ... contact ... contact

## FOR SALE

**XE SYSTEM:** XE, 1050 disk drive, XC12 datacorder, 2 joysticks, 2 letter quality printers, New Atari User disk 47 -57, Transdisk, AtariWriter Plus, 50+ games on tape and disk. £195 the lot. Phone 081 647 9692

**XE SYSTEM:** 1050 drive with Happy Archiver installed and with write/protect and fast/slow switches fitted, 410 program recorder. Storage box with 100 used disks, ICD's US Doubler with Sparta DOS, also DOS 2.5 & 3. 130XE for spares, not working. Centronics Printer Interface by Micro Print, £150 ono. Software: Paper Clip, Transdisk v2.3, TariTalk, Lapis Philosophorum, PacMan and Pole Position ROMs, £25. Books: The Atari 130XE Handbook and The Atari 130XE Owners Manual, £5 for both. Contact Caroline on 0222 491156

**XE SYSTEM:** 130XE, XF551 disk drive, 1020 printer/plotter, Touch Tablet, XC12 Data Recorder, Proline Joystick, Replay sound sampling system, loads of magazines and software including Mini Office II. £250 the lot (no splits). Also 800XL, £35. Phone Boston (0205) 353446

**MAGAZINES:** Ten PAGE 6 magazines 31 to 40 inclusive £10 plus p&p. J. Simpson, 10 Ballot Hill Crescent, Bilsborrow, Preston, PR3 0RX

**PRINTER ETC.:** 1029 printer, boxed with manuals, Mini Office II, 10-Print, First Xlent and picture dumps, £70 ono. Also Touch Tablet boxed £15. All in working order. Phone 0455 230696 (Hinckley)

**130XE SYSTEM:** 130XE 128K computer (boxed), 810 disk drive with Happy enhancement, 410 cassette recorder all in very good condition. Many disks inc. Mini Office II and cassettes (games and serious), printer interface and SEK printer. Masses of information and many manuals. All this for only £125. Phone Brighton (0273) 566390 evenings or weekends

**65XE:** 65XE computer, PSU, TV cable, fully working, vgc. No tape or joystick hence £25 inc. Tel. Richard (0302) 784642

**XL SYSTEM:** 800XL, 1050 with US Doubler, 1010 recorder, Epson RX100 printer with Centronics interface, Parrot II sound digitiser, Touch Tablet with Atari Artist inc. games and business software worth over £300 alone. All this for only £195. Phone 0425 612119

**MAGAZINES:** ANTIC magazine 17 issues 1982 - 1985, ANALOG magazine 17 issues 1982 - 1985, open to offers. Buyer to arrange collection. 8-bit disk software - Paint, The Next Step, Preppie, Home Filing Manager, Archon, Crossfire, Choplifter, Wizard & Princess, Ulysses, ECABBS. Originals only with instructions. £40 inc. post. Tel. 0925 828914

**8-BIT HARDWARE:** 65XE, £30; 800XL (unit only), £15; 1050 disk drive, £60; XC12, £15; 1010, £20. All in working order. Derek Harris, 11, Pembroke Way, Nuneaton, CV11 4FT

**XE SYSTEM:** 130XE, 1050 drive, joysticks, paddles, printer interface, WS2000 modem and interface (mostly with original boxes), loads of software including many now-defunct classics and PAGE 6 disks 1 - 100 - a system built up over 10 years! Yours for £300 - no split. Phone Chris on 0256 20300 (Basingstoke)

**XL SYSTEM:** 800XL, 1050 drive, two 1010 tape, 1029 printer, 2 joysticks, lots of mags, loads of games on disks, tapes and cartridges. Mini Office II and other utilities all boxed. Will not split, buyer must collect. £200 ono. Ring 0532 633757 after 7pm

**MAGAZINES:** Page 6 Issues 1-55, Atari User (Database) 1 - end, Monitor 1-21, ANTIC Dec 86 - end, START Nov 90 - May 91, ANALOG 8, 9, 11-26, 52-69, 72-79. Over 200 mags bought for 8-bit but many ST sections and some on disc. Yours for £50 the lot, no splits, buyer collects! Phone Chris on 0256 20300 (Basingstoke)

**DISK SYSTEM:** 1050 disk drive complete with 800XL, XC12 recorder and 1029 printer. Package includes all cables/books etc. Tel. 0773 716250

**XE SYSTEM:** 130XE, 1050 disk drive, 1029 printer, 1010 tape deck, 11 books (inc. De Re Atari), 60+ magazines (inc. ALL PAGE 6). Many programs on disk (inc. FSII, Visicalc, Microsoft Basic for Atari), some tapes and 800XL - all complete and in good order - £250. Please ring Neil Le Maitre on 0922 55409 (Walsall)

**CARTRIDGES:** Only £2 each, XL/XE cassette games only 50p each, XC12 data recorder £8, 65XE computer with leads, powerpack, joystick, games, £20. Phone Ralf Galliers on (0203) 679583 after 17.30 for more details

**SOFTWARE:** Original cass. games Kikstart, Arkanoid, Gridrunner £2.25 each or all for £6; Thrust, On Cue, Powerdown £2.25 each or all for £6; Transmuter, Storm, Tank/Sub Commander £2.50 each or all for £7. we will split postage. First writer FREE game. Write to Arnold Bontsema, Euvelgunnerweg 10, 9723 LT, Groningen, Holland. Tel. 050 424082

**XE SYSTEM:** 65XE and XC12 tape deck, all leads etc. £45 ono. Software for sale, separate cassettes, disks, all originals boxed with instructions. Send SAE to M. Fenwick, 55, Bridge Street, Long Eaton, Nottingham, NG10 4QS. Tel. (0602) 720597

**VARIOUS:** 800XL, 1010 tape deck, XF551 drive, SpartaDOS X, 1020 printer/plotter, about 70 disks, some blank, some PD, some cassette software, Rescue on Fractulas and AtariArtist ROMs (but no Touch Tablet), monitor lead, books and many issues of New Atari User and PAGE 6, also pair of paddles, £280; 2600 cartridges - Pacman, Centipede, Dig Dug, ET, Galaxian, Jungle Hunt etc. (12 in all) for £20; also 80% of the ST Family Curriculum pack worth over £300, sell for £100. Buyers must collect. Please write to S.J. Shepherd, 63, Church Avenue, West Sleekburn, Choppington, Northumberland NE62 5XG

**COMPLETE XL SYSTEM:** 800XL with OS system upgrade, 1050 disk drive with Happy upgrade, 1029 printer with Font Four upgrade, 1029 printer (standard), 1010 cassette, Touch Tablet and art package. Software/ manuals/ books/ mags. All in excellent condition with original packaging, £199 o.v.n.o. Plus free computer desk. Tel. Mike on 0354 693155 (Cambs) after 6.30pm

**VARIOUS:** Loads of 8-bit hardware, software, books, mags etc. for sale. Send SAE for full list to George Carruth, 61 Spey Road, Bearsden, Glasgow, G61 1LB *(A copy of the list from this long time subscriber has been lodged with PAGE 6. Ed.)*

**XL SYSTEM:** 800XL and 1010 recorder. All original boxes and good condition. Lots of PAGE 6 and other Atari mags included along with ROM and tape software, £30. Buyer collects. write: A. Cole, 83 Alfoxton Road, Bridgwater, Somerset, TA6 7NW

**XE SYSTEM:** 130XE with 27 games boxed and XC12 very good cond. £50. 800XL with games, £20. Phone 0639 639040

**XE SYSTEM:** 65XE computer with XC12 cassette and joystick complete with cassettes and cartridges, all fully boxed with instructions. £50 ono. Tel. 0296 658839

**SOFTWARE:** 8-bit software, 13 original games tapes, PacMan cartridge, Basic XL Cartridge and manual, Assembler Editor cartridge and manual, £30 the lot or will split. Tel. Worthing (0903) 262606

**PRINTER/PLOTTER:** 1020 model in working condition with spare colour pens, paper rolls and original packing, £40. Tel. (Exeter) 0392 431192 and ask for Sean

**FS2:** Flight Simulator II cartridge, instructions and maps plus Learning To Fly Flight Simulator book, £15 ono. Tel. 0602 400768

**XL SYSTEM:** 800XL, 1050 disk drive, ICD printer interface, manuals, Atari User magazines and Basic programs plus some educational software e.g. Newspaper program and joystick plus 50 floppy disks and 100-200 games plus 5 games on ROM, £100 or near offer. Contact Carey Theobald, 34, Northcote Road, Portswood, Southampton SO2 3AG or tel. 0703 315205 after 4pm

**COMPLETE XL SYSTEM:** 800XL, 1050 disk drive, 1020 printer, XC12 data recorder, all leads and manuals, books, 100's games and utilities inc. many adventures, Transdisk, Taritalk, Print Master, AtariWriter, Graphic Art Department, Visicalc, FS2 and PAGE 6 cover disks and magazines etc., etc.! All this plus 16" colour TV for £180 ono. Can deliver within Yorkshire, Durham area. For details phone 0642 598343 any time

**XL AND ST:** Bits and pieces inc. Touch Tablet, WS2000 modem plus software, books and other hardware. SAE for list to Gary Bolton, 40, Minster Court, Liverpool L7 3QD. Tel. 051 709 4594

**XE SYSTEM:** 65XE excellent condition with leads and adaptor. Cassette and cartridge software worth over £100. Ten issues of New Atari User worth £19.30. Total worth £219.37 will sell for £100. Call Fleetwood (0253) 872889 and ask for Damian or write to 33 Ullswater Avenue, Fleetwood, Lancs. Buyer collects or pays postage.

**PRINTER:** XL/XE fast professional daisy wheel printer RICOH 1600S with Atari interface unit, £50. Phone 0625 420782

**XL SYSTEM:** 800XL, 1010 recorder, 1050 disk drive, leads and manuals, spare keyboard, games inc. FS2 with scenery disks, Silent Service, Leaderboard, Vietnam, Tomahawk and more. Most Atari User mags. £175 ono. Tel. 0705 839375 after 6pm

## WANTED

**SOFTWARE:** Leaderboard Golf game (must be original) complete with packaging and instructions, also Midi Mate hardware/software made in the USA. Contact Derek Fern on 021 353 5730

**MANUALS:** Wanted for F-15 Strike Eagle and Visicalc. Will pay postage etc. Phone Dennis on 0273 540661

**TAPE DECK:** XC12 cassette recorder for the Atari 130XE. Please phone 0634 683281

**BOULDERDASH:** Boulderdash on disk wanted. Would pay reasonable price. Contact James on (0795) 473117

**MANUALS:** Instruction manual for Transdisk IV and Head Over Heels on disk. Reasonable price paid. Phone Paul, Ashford, Kent on 0233 626863

**SPARTADOS:** SpartaDOS Construction Set, cartridge or disk, Ultima IV. Phone 0527 62230 after 6pm ask for Richard

**ADVENTURES:** £12 each plus postage paid for disks: Planetfall, Leather Goddesses, Suspended, Wishbringer, Witness, Return To Pirate Island. Robert Carmichael, 54 Barry Road, Kirkcaldy, Fife, Scotland KY2 6HZ. Tel. (0592) 265154

**FONTS:** Fonts for Daisy Dot/ Dot Magic wanted. I will return a disk of my fonts in exchange for a disk of your fonts OR blank disk + 25p OR £1.25. Bryan Zilwood, Cherrydown, Netherhill, Botley, Southampton SO3 2BP

**WANTED:** Ultima IV; Mapping The Atari; PAGE 6 any of issues 1 to 15 inclusive. Jason Kendall, 22 Beck Way, Thurlby, Bourne, PE10 0LE. Tel. 0778 426409 after 6pm or weekends

**MAC-65:** Has anyone got any instructions, tips or books on how to use this as I have just got a copy without the manual and am a complete beginner to Assembly Language. (Will pay). Write to James Howarth, 86 Ashtree Road, Oadby, Leics LE2 5TD

**TALL ORDER!:** I need a 1050 disk drive with US Doubler or Happy for £50/£60 with upgrade or £40/£50 without. Any programming books esp. Mapping The Atari, M/C Tutor and Compute! books. Reasonable condition and price paid. Touch Tablet around £15, memory upgrades or an Atari plotter. Write to James Howarth, 86, Ashtree Road, Oadby, Leics. LE2 5TD

**DISK DRIVE:** 1050 disk drive or similar for Atari 800XL computer to run DOS 2.0/2.5/2.S disks. Present 1050 drive not working fully due to faulty stepper motor. Can anyone help with a motor? Tel. 0254 771707 (Lancs)

## PENPALS/HELP

**ATARI ELITE:** New, fun and educational for all Atari machines and users, send cheque/PO for £8 (payable to Atari Elite) for a 4 issue subs or an SAE for info. Send to Atari Elite, 14 Drovers Way, Peebles, EH45 9BN

**ATARI ELITE:** We need editors, contributors and artists so get helping. Write to Atari Elite, 129 Ladybridge Road, Cheadle Hulme, Cheshire SK8 5PL

**HISCORES BOOKLET:** My HiScores booklet is now finished. Send SAE plus 20p for your copy (include your own high scores if you want). I also have a disk version of the HiScores which is FREE! Send SAE plus a blank disk and you'll got a more colourful version of the booklet. Alternatively send £1 and I'll send a copy on one of my disks and include the booklet free. James Haworth, 86 Ashtree Road, Oadby, Leics. LE2 5TD

**SILENT BUTLER:** Can anyone send me a backup copy of the original Silent Butler Record disk? (Nr. DX5082). Mine got erased. Disk returned. Francis Baert, 30 Goudbloemstraat, Aalst 9300, Belgium

**USER GROUP:** North of Scotland Atari User Group (NOSAUG). XL/XE owners throughout Scotland are invited to join this expanding user group. Free membership, bi-monthly newsletter, cassette and disk PD libraries, trips to shows etc. Full details from S.J. Murray, 71 Walker Road, Torry, Aberdeen AB1 3DL. Tel. (0224) 879216

**FUTURA:** A new bi-monthly disk mag for the XL/XE. Packed full with new articles, utilities, games, demos etc. All for only £1.95. Also available as a cassette/printed copy for only £3.95. Send cheque/PO (payable to S.J. Murray) to Stuart J Murray, 71 Walker Road, Torry, Aberdeen AB1 3DL

**PRINTER DRIVER:** Driver wanted for Panasonic KX-P1123 24 pin printer for any 8-bit software. Also contact with owners of KX-P1123. Tel. Richard (0302) 784642

**HELP:** All washed up on Drelbs. Has anyone got instructions? Please send photocopy to Simon Bridgeman, 4, Appleton Avenue, Wareside, Nr. Ware, Herts. SG12 7SR

**PENPAL:** Would Richard Carter, Robert Ham, Michael Hutton, John Mizzi please contact me. It has been a while since you guys wrote me. Does anyone know them? Remind them! Write to Arnold Bontsema, Euvelgunnerweg 10, 9723 CT, Groningen, Holland

**CONTACT:** Any 8-bitters here or abroad wishing to swap games, hints and tips write to M. Fenwick, 55, Bridge Street, Long Eaton, Nottingham, NG10 4QS. All letters answered.

**USER GROUP:** New user group for cassette users. Send SAE to A. Gilbey, 1, Eastbrook Avenue, Dagenham, Essex RM10 7UL

**XL OWNER:** Wants penpal to swap hints and tips with. Write to Neil Munn, 56, Walsingham Avenue, Kettering, Northants, NN15 5ER

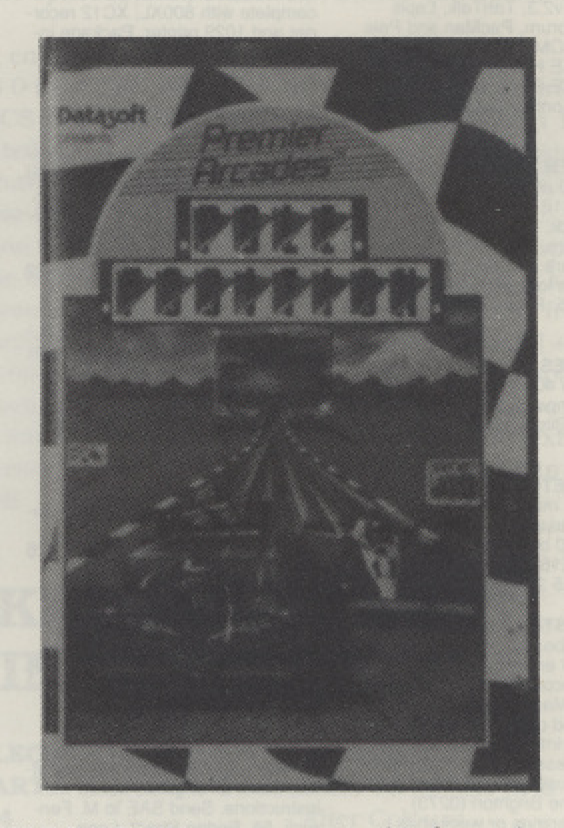
**CONTACT is FREE of charge and may be used by any genuine Atari enthusiast for contacting other owners. Any notice may be included except those offering software only for sale or exchange or those offering items for sale commercially. The Editor reserves the right to omit or edit any notice received at his discresion. If space is tight, notices may be shortened and addresses may be omitted with only telephone numbers being published.**

**Send your CONTACT notice to CONTACT, PAGE 6, P.O. Box 54, Stafford, ST16 1DR. Please write your notice on a separate sheet of paper, not as part of a letter.**

**FOR SALE ... WANTED ... PEN PALS ... ADVICE ... HELP ...**

# LIFE IN THE FAST LANE

***We wanted Nigel Mansell to write a few words but $23,000,000 was a bit too much to pay as a retainer so Paul Rixon (like Ayrton Senna) said he'd do it for nothing!***




*POLE POSITION - uncommon in this format but still available as the original ATARI ROM*

The public's interest in motor sport has recently reached an all time high, especially since Nigel Mansell began to look as if - and subsequently proved - he could win the World Formula One Driver's Championship. It seems quite incredible that the last time an Englishman (James Hunt) achieved this title Atari home computers had yet to be manufactured! While many software houses will have already jumped to cash in on the Formula One euphoria, 8-bit Atarians would be sadly deluded if they believed there was a possibility of XL/XE inclusion in the commercial release schedules. But all is not lost, as over the years there have been more than a few racing games produced for the 8-bits. I thought it was about time to put on the racing overalls, rev up the joystick and take some of the oldies out for a spin.

## GAINING POLE

They don't come more 'classic' than ***POLE POSITION***, one of the first - and some would argue, the best - racing games produced by Atari themselves (later re-released by Datasoft/ U.S.Gold). Pole Position has received much praise for its 3-D perspective representation of the race track, complete with scrolling track-side scenery. The game features a single race circuit and a car with three basic controls (brake, accelerate, steer) but its simplicity seems more of a selling point than a drawback! You must qualify for a place on the starting grid before the race proper commences over a pre-selected number of laps. The race is actually against the clock since the other cars don't have specific field positions and they always reappear, no matter how frequently you pass them! A crash results in lost time whilst points are awarded for total distance, passed cars and seconds remaining.

Strangely, few reviews of Pole Position mention the frustrating bug that means you can't complete certain races without slowing down to accommodate the timer! During an eight lap race on the hardest level, you must avoid having more than 37 seconds remaining on laps 1-5 or more than 34 seconds on laps 6-8 as you cross the start/finish line, otherwise the countdown timer fails to reset and the game swiftly ends! Less dramatically, the maximum speed of 195mph has been known to rise on random occasions to 234mph! Bug-free it isn't, but Pole Position has still earned a special place in many gamers' collections.

## OFF CIRCUIT RACING

Activision's ***GREAT AMERICAN CROSS COUNTRY ROAD RACE*** (subsequently renamed 'American Road Race' for budget release by Silverbird) set new standards in auto-simulation gaming. Unlike most of the competition, this game is not based on circuit racing but involves a dash along the freeways in various states of America. Before you head off at break-neck speed there's a choice of various challenges - for example, a straightforward run from West to East or a tricky round trip through several major cities. A map screen lets you choose the most appropriate route, bearing in mind such factors as the time of day (it's less busy after dark) and the weather conditions.

You view the proceedings from just behind your car, which travels through the 3-D perspective scenery in a similar style to Pole Position. Your car - and the others you meet on your

travels - are rather squashed in appearance, but this is the least of your worries as you weave past other drivers at speeds of up to 240mph! If you hear a Police Siren you must either accelerate and attempt to out-run the pursuing cops or slow down to a law-abiding pace - otherwise you are detained while they issue a ticket! You should keep a watchful eye on the fuel gauge as you'll need to stop for a re-fill at frequent intervals. There are several other dials on the dash to keep you occupied and varying patterns of traffic ensure you'll never hit a dull moment as you race for a slot in the hall of fame. In terms of playability alone, American Road Race is undoubtedly a winning package.

## SALOON CAR RACING

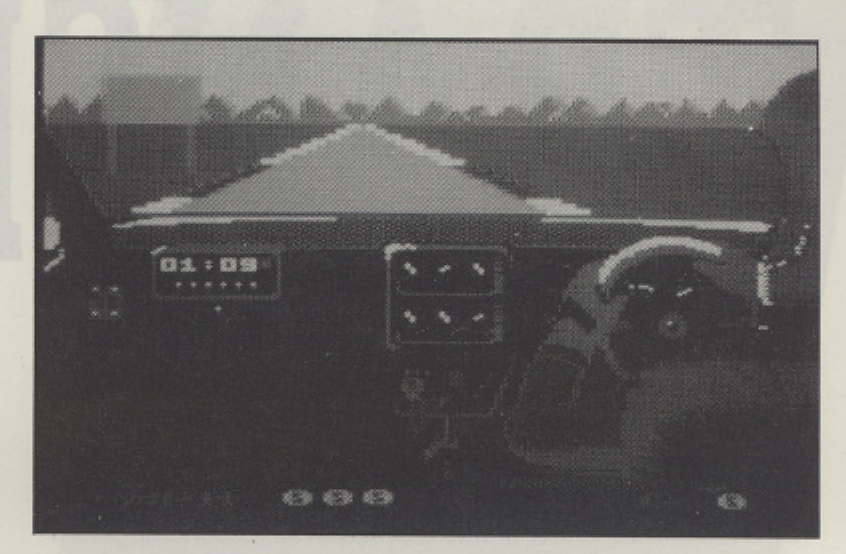
Towards the end of 1987 Red Rat began to advertise a new game billed as 'the most realistic rally game on four wheels'. ***SPEED RUN*** promised to break the mould of previous racing simulators by presenting a view from inside a Sierra Cosworth rally car, with 3-D scrolling graphics beyond. It all sounded too good to be true, and sure enough Red Rat announced they had shelved the project due to 'uncertainties over the 8-bit market'. Many Atari owners were not at all pleased with this news and such was the response that Red Rat eventually decided they had better launch Speed Run after all. The finished package first came to my attention in April 1989.

Without doubt the merits of Speed Run lie entirely in the graphics department. The 3-D display is most impressive, and meticulous care has clearly been taken to represent the car's interior and dashboard. Through the windscreen a familiar grey track, edged with red and white curb-stones, winds into the distance. The scene is completed with various background scenery and occasional trackside hoardings. On the right hand side the driver is seen to steer and change gear as you issue commands via the joystick. The sound isn't quite as stunning but Red Rat obviously recognise this since the package includes an audio tape containing the theme tune (the 16-bit versions contain the same music in digitised format). Initially you can choose automatic or manual gear-change modes - the latter is only recommended once you've gained a good deal of experience. The disk version includes a workshop menu from which you can choose one of three bonus attributes: extra tire grip, fuel injection or a super-efficient pit crew. If (or when!) you crash, you can expect a rather frustrating loss of vital seconds while your vehicle is repaired. Unfortunately the game's playability doesn't quite live up to the rest of the package - there's only one circuit and no indication of your progress in a race. Keeping your car on the circuit is quite a challenge in itself and your view through the windscreen doesn't give much away as to your position on the track. Despite these problems, Speed Run is still a worthwhile acquisition just to illustrate the graphics potential of your Atari. It's visually amazing!

## BEYOND REALITY

English Software were once a rather prolific source of games for the 8-bit Ataris. They published a string of brilliant titles including Jet Boot Jack, Mediator, Chop Suey and Timeslip. One of their more innovative products was a game described as the 'ultimate fantasy racing epic' - ***ELEKTRAGLIDE***. I've heard plenty of criticism concerning this game, but in my opinion it should be regarded as one of the all time classics!

Peering through the windscreen of your space age vehicle you must glide around the Pole Position style circuits accompanied by "16 bit hi-res music by Yekao" (it's pretty good too!). The aim is to reach a tunnel before the time limit expires. There are no other vehicles but hazards abound in the form of 'S' bends, pools of water and 'electrostatic columns' dropped from a plane flying overhead. The biggest problem is that spinning 3-D cubes and bouncing spheres litter the track and if you collide with them you waste valuable time. Avoidance is easier said than done! The graphics throughout are superb, right from the opening screen where 'tweening' - transforming from one shape into another by gradual stages - is used to excellent effect. From here you can choose from a British, American or Australian circuit - each of these has a fork junction in the roadway, giving six possible routes overall. The background scenery comprises different layers which move at various speeds, giving a good feeling of depth.




*SPEED RUN - great graphics, great promise not quite fulfilled but still up among the best racing sims on the Atari*

Elektraglide has, in the past, been the subject of some adverse comments due to its advanced level of difficulty. It's even been mentioned that the game is impossible to complete but this simply isn't true! As with most games practice is the key to success and with suitable perseverance (and a reasonably good joystick!) all six finishing points can be reached. However, at this stage criticism is rather more deserved since the endgame sequence is truly conspicuous by its appalling implementation! After all the trouble of cracking a level you are rewarded(?) by a few notes of sound and are then returned to the title page. Still, the satisfaction of finally mastering a level, not to mention the superb graphical delights en route, is sufficient to earn the game its classic status. I totally recommend it!

## AND OTHERS ...

Unfortunately there isn't space here to cover the many other racing games available for your Atari. Some of the best include ***Pitstop***, ***On Track***, ***Rally Speedway***, ***Speed Ace*** and ***Grand Prix Simulator***. Some of the worst include ***Talladega***, ***Pitstop II*** and ***Death Race***, but that's another story!

*Pole Position is available on ROM cartridge from Page 6. Elektraglide is available on disk as part the Smash Hits 7 compilation, also from Page 6 while stocks last. Speed Run and American Road Race are rather hard to find at present!*

# TRANSDISK IV

I *am sure that every reader of New Atari User will have either seen, used, or heard about Transdisk IV, the tape to disk utility. I am equally sure that a large number of disk drive owners will not have purchased Transdisk because of their reluctance to accept that a program so reasonably priced could possibly do all that it claims.*

*In this article I will try show some examples of the uses, methods and limitations of Transdisk, as well as giving some hints to overcome the minor problems I have found. I would hope that if the 8-bit, drive owning community were aware of this program's capabilities, they would be prepared to part with £12.95 in order to improve their own system, and at the same time help keep our magazine alive.*

***Mark Stinson presents an unbiased (and unsolicited!) users view of a legendary utility for disk owners***

## INTRODUCTION

So what, you may ask, does Transdisk actually do? Well, Transdisk allows you to create a disk loader menu, and to copy commercial and non commercial cassette software to that disk. You need not worry about breaching copyright, as long as you only make backup copies of your own software, and solely for your own personal use.

Transdisk is capable of copying most cassettes, including software that requires 64K of memory, and games that load extra levels. As there are a large number of different cassette formats which can make copying tricky, the program has an equally impressive number of variable settings to deal with non standard recordings. However, I have found from personal experience that the most difficult cassettes to copy are those which load extra levels, some of which I have still not cracked. As I mentioned earlier, Transdisk can handle these cassettes , but they can be difficult. One specific problem I have encountered in this area has been the limited storage capacity of a disk when extra levels have to be stored.

## USES

Most people who own a disk drive will probably have started out with a cassette deck, and cassette based software. I know that when I first bought my drive, some five years ago, I had upwards of 70 cassettes. All but five of these have been successfully transferred to disk, and now load in seconds rather than minutes.

Even if you do not own a single cassette, Transdisk is still well worth the investment. The market for Atari 8-bit software is dwindling, and along with it goes the availability of disks, but even in this sorry state of the market, cassettes are still being released. Just take a look at the inside front cover of New Atari User, issue 56; do you own all those games? I would doubt that many people own them all, and I am sure many people don't bother because they are stored on cassette. Once you own Transdisk, the availability of software for your Atari grows ever wider.

Transdisk is also good news for 130XE or expanded memory owners. This was one of the few packages written to use the extra memory available on a 130XE, while remaining compatible with smaller memory machines. It has also been around for a number of years, so there is no shortage of users to communicate with, and gain assistance from.

## TRANSDISK IN ACTION

When you boot up the disk, you are presented with the following menu:

**1** Index of drive one files
**2** Index of drive two files
**(I)**nitialize disk
**(S)**tandard autoboot tape read
**(N)**on-Standard autoboot tape read
**(W)**rite new disk file
**(A)**ppend to disk file
**(D)**elete disk file

Ninety per cent of the time, using Transdisk is quick and easy. Having a 130XE, or expanded XL also help to limit the time you need to invest in copying your cassettes. So, with the exception of the odd few problematic cassette formats, the following stages are all that need to be undertaken to copy cassettes, and place them on disk.

***(I)nitialize disk***

This option enables the user to format a disk for either 64K or standard games. At the sub-menu select either XLMENU.SYS (XEMENU.SYS on the 130XE) for 64K games, or XTMENU.SYS for standard games. Your blank disk is then formatted, and the relevant menu driver written to it.

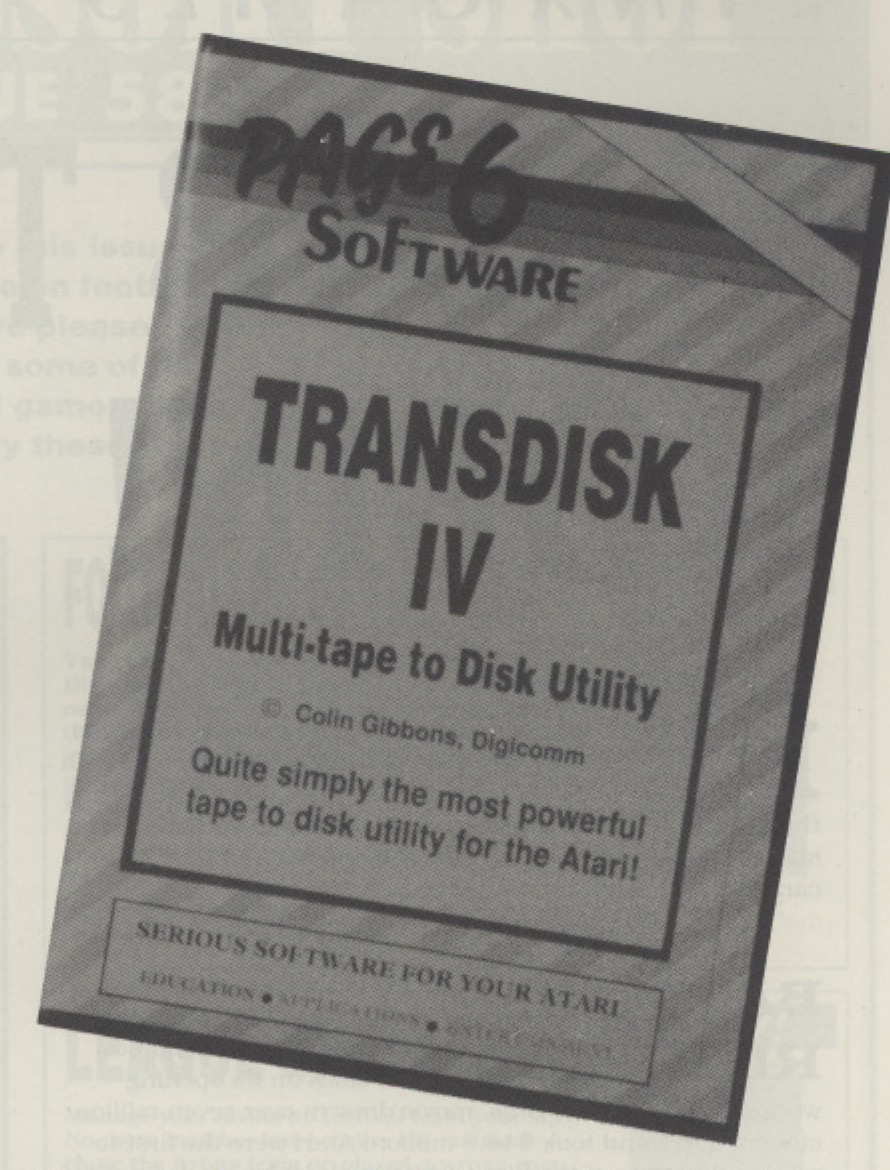
***(S)tandard autoboot tape read***

This is the option used for transferring most cassettes. With a tape inserted, the cassette deck is set to 'play', and the 'start' key is pressed. The software will now read in the first stage of the cassette; some cassettes are only one stage long, but most are made up of several. If your cassette is made up of several stages this will be apparent during a normal cassette load. When loading, the recorded hisses and crackles will be interrupted with the occasional gap, normally lasting two or three seconds. If you know the number of stages a cassette is made up of (load the tape normally, and count them) then 'option/select' can be used to set the number stages needed. This is no problem on a 130XE, but you are limited to the number of stages a smaller memory machine can load at once.

***(W)rite disk file***

This option writes the game file, or stage, to any menu disk. You may write the file out as many times as you wish.

Now, booting the new disk will give a menu showing the games currently stored on it. Simply press the letter which corresponds to the required game/program and, if all is well, the game should load.




## MEMORY LIMITATIONS

If you own a 48K or 64K machine there will be many games which cannot be held in memory in full (the Transdisk program uses a fairly hefty chunk of memory). This is especially noticeable with games which load extra levels. This is where the 'append' function comes into play. The cassette is copied in the usual manner, but with the number of stages set to 1. The one stage copy is then loaded and written to disk. Each subsequent stage is loaded, and 'appended' to the main file until the game is copied. The only drawback is the length of time the user has to spend at the keyboard, waiting for the individual stages to load.

## NON-STANDARD CASSETTES

Some cassettes will not copy with the standard settings, and the non-standard option will have to be used. This is well covered in the instructions but, briefly, it is used as follows. Different tapes may have different 'baud' settings. A baud setting relates to the speed and size of portions of data being transmitted to the computer, via the tape deck. The non-standard option allows you to choose different settings for baud rate- 0,2,4,6 and 8. Anyone who owns Fighter Pilot will have noticed the different sound that the cassette generates when loading; this will not copy on a standard setting, however by setting the baud rate to eight, Transdisk will copy Fighter Pilot with ease.

## IN CONCLUSION

Transdisk is a very powerful utility and is a must for all disk owners. It does all that it claims, and usually with little fuss, and the minimum of effort. It does, however, have some limitations:

*Compatibility*

Although it is compatible with DOS 2, it is not easy to backup menu disks. The best I have managed is to format a disk with Transdisk and then delete the menu. Next, load DOS 2 and use 'duplicate disk'. This will copy a whole menu disk, but I usually find that one of the files will not work properly. To combat this, I then use transdisk to copy a stage from any cassette and write a dummy file to the menu disk. Once the menu disk is copied, the dummy file is usually the file corrupted.

*Disk space*

The menu file takes a large number of sectors (120) so games like Gauntlet will not fit on a disk unless it is in enhanced or double density.

*Games with extra levels*

Games that load extra levels are especially difficult to copy. I have still not managed to copy Gauntlet and The Goonies.

*Game saves*

Cassette games which use game save (such as adventures) do not have the save facility ported to disk, however I have found that this can be overcome with many adventures such as Mordon's Quest, Adventure Quest, and all the Scott Adams tapes. Simply press system reset when the game is loaded. Sometimes this re-boots the game, in which case it will not work, but if the game reappears instantly, you can now save to cassette. This is not particularly annoying, as most game save facilities only take a few seconds anyway.

One final hint that may be useful is that DOS 2 can read the disk. So, you can use a sector editor to examine the copied software, and you can use a DOS 2 based cataloguer.

Despite the minor limitations, I have absolutely no hesitation in recommending this utility. Indeed, I would suggest that this is the one essential disk in all drive owners' collections.

*Availability: Page 6 Publishing*
*Price: £12.95*

# GRAB THE LYNX ROBIN!

Despite most of the media attention going to Nintendo and Sega, the Lynx is more than holding its own with regular software releases. Atari are making sure that their great little machine doesn't fall behind in the software stakes and this issue I have been able to test out four more cartridges.

## BATMAN RETURNS

The film set a new world record, accounting for almost half of North America's total box office sales on its opening weekend. The Warner Bros. movie drew in over seven million cinema-goers and took $46.8 million! Atari were the first to release the game of the film and if you don't have a Lynx yet you can get one free with a new Lynx 2 for only £99.99 - by itself the cartridge is £34.99.

It is a fairly standard horizontal-scrolling beat-'em-up. The graphics are superb with large colourful sprites, the animation is excellent, and the baddies keep coming in an unrelenting stream of varied violence - fists, knives, bombs, machine guns and motor bikes permeate the first level wherein you must battle the Red Triangle Gang to reach the Penguin as the first "end-of-level monster".

The Batman leaps and somersaults all over the screen under joystick control and you can attack with fists, batarangs or vials of acid - watch out for replacement weapons along the way!

An excellent arcade game, with the only real criticism being that it is VERY hard and there are no restarts or passwords.

## LYNX CASINO

If you want a rest from the stress of high speed arcade action, but you don't want to have to think too hard, this could be just the game for you. You stroll around the Casino with $2000 burning a hole in your pocket - when you find one of the five games and fancy losing a few dollars just press button A!

All the games are played very realistically, with full betting options, and odds just like in real casinos. You should be aware that the odds in casinos are set so that the casino makes a profit! Some people win, some people lose - but on average the winners win less than the losers lose! So don't expect to make a profit every time - fortunately there is a cashier who will let you have another $1000 if you blow it all!

The Roulette and Blackjack are both pretty full implementations of well-known games. The Slots are a little primitive compared to the sophisticated devices available in pubs these days - but are fun for a change. The Poker is a video-machine version - you get five cards - change as many as you wish once - and get set winnings for particular hands - you aren't playing against anyone else. The last game is less well known - it is an American dice game called Craps - no it is nothing to do with the useful device invented by Thomas Crapper! You roll a pair of dice and then bet as to whether you will throw the same number again before you throw a seven. Lots of side bets are allowed on every throw of the dice.

If two Lynxes are linked then you can share the Roulette, Blackjack and Craps games.

All the games are well explained in the instructions and all are well implemented so that you can play very easily and lose all your money as quickly as you like! Great fun!

## HYDRA

A high speed race against time along twisting waterways - you drive straight into the screen trying to avoid or blow up all the obstacles to reach your destination before you run out of fuel. You are delivering valuable cargoes - if you crash they must be retrieved from the water - or from an enemy ship which grabs them. Lots of "continues" so once you get the hang of the controls you can keep going for a long time.

Collect lots of money along the way and you can buy a nice selection of weapons and power-ups in the end-of-level shops: boosts (high speed flying), antigrav (normal speed flying), flamers, uzis, smart bombs, shields, 6 way shots, and extra fuel.

Nothing particularly innovative, but a good game of the genre if you don't have one already.

## HOCKEY

An excellent sports game with lots of nice features. The manual is very helpful if you don't know the rules of Ice Hockey - though some of it may be a little confusing. The action is fast and furious and it takes a bit of getting used to before you can join in the frantic action that carries on all around you regardless of what you do. There are five men on your team and you control one of them - you can switch to control the one nearest the puck at any time with Option 1.

Two special sequences are the Fight and the Shootout - both can be practised from the main menu. Fights can be instigated by either side at any time - it switches to a closeup of the two men who can do four different punches while ducking and weaving - the loser gets sent off for a time! Shootouts resolve draws - turn your Lynx sideways and take alternate shots at each others goals.

There are lots of teams to choose from and you can tailor them for skills at Slapshots, Defence, Passing, Fighting, etc.

Highly addictive once you get the hang of it - an excellent addition to the Lynx range.

## FUTURE RELEASES

Still technically the most powerful hand-held, the Lynx's only real weakness was the range of games, but this continues to go from strength to strength and with the rumours that games like Pitfighter, Lemmings and Eye of the Beholder are on their way the Lynx is definitely worth buying!

*by John Sweeney*

# THE ACCESSORY SHOP
## ISSUE 58

# FOOTBALL CRAZY!

**To celebrate this issue's major feature on football games we are pleased to be able to offer some of the best football games still around. Enjoy these while you can!**

**STILL AVAILABLE**

*TWO POPULAR ROMS BACK IN STOCK*

**RIVER RAID - ONLY £3.95**

**KABOOM - ONLY £2.95**

See previous issues for full descriptions of these great games

## KENNY DALGLISH FOOTBALL MANAGER

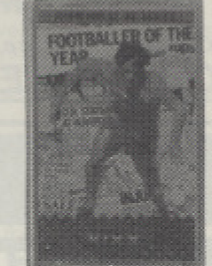



The ultimate in football management games, for the first time in a football management simulator Kenny Dalglish's Soccer Manager combines stunning top-notch full colour graphics with a fun-packed game design which will leave you breathless with its great features. It has an amazing easy to use icon-drive play system and the exciting gamesplay includes: full four division league, detailed graphic highlights, board of directors for detailed performance reports, detailed game strategy, half-time updates, substitutes, injuries, suspensions, full transfer market and lots, lots more!

*Cassette only* **OUR PRICE £2.95**

## FOOTBALLER OF THE YEAR

**NEW!**




You're a 17 year old apprentice in the 4th Division with only £5,000 and 10 goals to your name. Have you got what it takes to cope with the trauma of transfer deals, injuries and other match day problems, while displaying skill and professionalism in matches throughout Europe? Rise through the divisions, outclassing rivals on the way to prove you are the best and gain the highest accolade ... Footballer Of The Year!

**OUR PRICE £1.95**

CASSETTE ONLY

## LEAGUE CHALLENGE

**NEW!**




Manage your favourite football team your way. No more matches lost because the manager chose the wrong team or played a wrong combination. Now is your chance to go for Division One. Maybe even win the league and cup double. Who knows, you may even find the manager's job is more difficult than you thought.

**OUR PRICE £1.95**

CASSETTE ONLY

# *CLASSY CASSETTES*

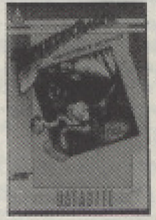
## SPEED HAWK



One of Atari's last games for the 8-bit released only a short time ago at full price can now be yours at budget price! A smoothly scrolling arcade game in which you must defend the ring worlds of your solar system from the menace of space pirates. You alone can pilot the single seater fighter to undertake the task of destroying the mutant guardian that protects the fleet of pirate ships waiting to attack

*Originally £8.95* **OUR PRICE £2.95**

## BOULDERDASH II



A must for fans of the original Boulderdash and the perfect introduction to Rockford's underground world for those yet to experience the magic. 16 all new caves in an action strategy game for one or two players. Playable intermissions, 5 levels of difficulty and no less than 324 scrolling screens will keep you absorbed for a long time!

**OUR PRICE £2.95**

## TRIVIAL PURSUIT

**NEW!**

DISK ONLY

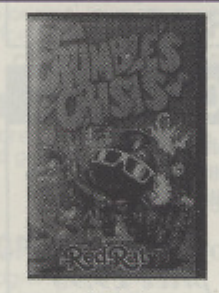
The classic board game translated to the Atari with added question power. Now you can answer questions presented with music and graphics as well as straight text. An ideal family game or one you can play on your own. Over 3,000 questions and all the mechanics of the game taken care of by the computer. Trivia has never been so much fun and has never been available before at this price!

*Originally £14.95*

**OUR PRICE £4.95**

## CRUMBLE'S CRISIS

**NEW!**




DISK ONLY

Captain Crumble was one of the characters that found a unique place in the hearts of many Atari addicts. This truly English creation will warm your heart too as he rushes around trying to round up the Fuzzies who have escaped from the Inter-galactic zoo. Can you find and snare the Fuzzies throughout all five levels of this game? Be warned it's not easy!

*Originally £9.95*

**OUR PRICE £2.95**

# LIMITED STOCK ITEMS

## ALL ITEMS FOR XL/XE ONLY

## *INCLUDING NEW ITEMS NOT PREVIOUSLY LISTED*

**These items of software are new to us or are replacements for items previously sold out Some are in short supply and may not be available again. Get them while you can!**

## *ADVENTURES/ROLE PLAYING*

### THE ETERNAL DAGGER

Many consider the SSI role-playing games to be among the best. This is the follow up to the best-selling Wizard's Crown

DISK

*Original price £24.95*

**OUR PRICE £8.95**

### JINXTER

An adventure from Magnetic Scrolls, the team that set new standards in adventure design Requires 1050 or XF551 drive

DISK

*Original price £19.95*

**OUR PRICE £7.95**

## *GAMES*

### ENCOUNTER

Three-dimensional high speed action in this classic that has been hard to find for some time. Based on Battlezone this fine arcade game was the first to have true 3-D and it outclassed most other games before and since. Experience one of the best games of all time now before it is too late!

*CASSETTE ONLY* **OUR PRICE £2.95**

### TENNIS

Great sports fun either against the computer or another player, singles or doubles. All the shots are here for top class action

ROM

*Normally £12.95*

**OUR PRICE £6.95**

### MIDNIGHT MAGIC

Pinball on your Atari can become totally addictive.Now you can join in the fun with all the thrills of the pinball table on your screen.

ROM

*Originally £14.95*

**OUR PRICE £7.95**

### BLUE MAX

Everyone must have heard of this World War Two 3-D flying game.We no longer have the ROM cartridge but this classic can be yours on disk for a lowly sum

DISK ONLY

**OUR PRICE £2.95**

### SUN STAR

The Sun Star is the fastest and most powerful craft ever built and you must pilot it to recover crystals from the solar grid. A slightly different arcade game.

DISK ONLY

**OUR PRICE £2.95**

### SPINDIZZY

Well known and highly regarded game in which the aim is to explore and map a 3-D world. Excellent graphics and testing puzzles

DISK ONLY

*Original price £9.95*

**OUR PRICE £4.95**

### PAC-MAN

Possibly the most well known of all computer games. Still a classic and still in demand

ROM CARTRIDGE

*Original price £12.95*

**OUR PRICE £6.95**

### SMASH HITS 7

Four great games - Colossus Chess 3, Electraglide, Blue Max and Alley Cat. This sold out very quickly last time!

DISK

*Original price £14.95*

**OUR PRICE £3.95**

### INTERNATIONAL KARATE

Atari owners waited years for this and when it finally arrived everyone raved over it. Still the best karate game around.

DISK

*Original price £9.95*

**OUR PRICE £4.95**

## *WAR GAMES*

### NATO COMMANDER

You are commander of Nato and your task is to defend Europe from Soviet invasion. Top class graphics, five scenarios

DISK

*Original price £14.95*

**OUR PRICE £5.95**

### DECISION IN THE DESERT

Take command at the Battle of El Alamein. You can lead either side in this accurate simulation from the creators of F-15 Strike Eagle

CASSETTE

*Original price £14.95*

**OUR PRICE £5.95**

### CONFLICT IN VIETNAM

Five battles of the Vietnam War recreated as you take charge of some of the most decisive battles attempting to change history.

DISK ONLY

*Original £14.95*

**OUR PRICE £5.95**

### PANZER GRENADIER

A wargame of German armoured infantry on the Eastern Front. Five historical simulations, skill levels, joystick control, graphics

DISK

*Original price £19.95*

**OUR PRICE £9.95**

### FIELD OF FIRE

From the sands of North Africa and the beaches of Normandy to the bridges of The Roer and the forests of The Ardennes you'll lead Easy Company into the crucial battles of World War II. This fine tactical simulation is historically accurate and requires good planning and execution to recreate or alter history. To heighten the realism and immediacy during play, special attention has been given to the Hi-Res colour graphics and lively sound effects.

*DISK ONLY* **OUR PRICE £6.95**

### NIBBLER

Slinking through an unknown land Nibbler finds himself in an iridescent world of constant change. As time grow shorter his body grows longer and he risks running into yourself. Can he survive?

*DISK ONLY*

*Original price £9.95*

**OUR PRICE JUST £1.95**

### FS2 SCENERY DISKS

*We have a few scenery disks in stock at £14.95 each - please phone for details*

## *SIMULATIONS*

### MIG ALLEY ACE

An aerial combat simulation set in Korea with 3D graphics, cockpit instrumentation, different skill levels and much more

DISK

*Original price £14.95*

**SOLD OUT**

### SOLO FLIGHT

A very neat flight simulator, not as complex as FS2 but still with the real feel of flying. Ideal to learn on before trying FS2 itself!

DISK

*Original price £14.95*

**SOLD OUT**

### SARGON III CHESS

Regarded by some as the finest chess simulator of all. Nine levels from beginner to master. Ideal to learn with as the manual teaches all the fundamentals of the game

DISK

*Original price £16.95*

**OUR PRICE £5.95**

### COLOSSUS CHESS 4

Claims to be the best chess program of all. The writers of Sargon III would disagree, but there is no doub this is a fine chess simulation particularly for advanced players

CASSETTE ONLY

*Original price £14.95*

**OUR PRICE £6.95**

*WE SUGGEST THAT YOU CHECK AVAILABILITY OF THESE ITEMS BY TELEPHONE*

# A Further Selection

***Here's the list of all the other items still in stock. Many of these programs will be familiar but if you want to know more check out the past couple of issues where all of these programs have been more fully described. Some real classics and some great bargains!***

## GAMES

### TENNIS — NEW!
Great sports fun either against the computer or another player, singles or doubles. Forehands and backhands, lobs - they are all here.
ROM *Normally £12.95* **OUR PRICE £6.95**

### JOUST — NEW!
Don your helmet and hoist your lance and climb aboard an ostrich in this unusual arcade game! Do battle with the evil Buzzard Riders!
ROM *Normally £12.95* **OUR PRICE £6.95**

### MIDNIGHT MAGIC — NEW!
Pinball on your Atari can become totally addictive. Now you can join in the fun with all the thrills of the pinball table on your screen.
ROM *Normal price £14.95* **OUR PRICE £7.95**

### STAR RAIDERS 2 — NEW!
The original Star Raiders is updated with better graphics and sound. A great follow up to an all time classic
ROM *Normally £14.95* **OUR PRICE £7.95**

### ROBOTRON 2084
You're the only being left who can defend humanity against the Robotron armies! You've got to move quickly to rescue the defenceless humans
ROM *Normally £12.95* **OUR PRICE £6.95**

### US FOOTBALL
American Football is now a big craze in this country and you can now play at home. Outsmart the defence, make tackles, select plays and more.
ROM *Normally £12.95* **SOLD OUT**

### EASTERN FRONT (1941)
The classic war simulation by Chris Crawford that astounded Atari users when it was released. Based on Operation Barbarossa on the border of Russia.
ROM *Normally £12.95* **SOLD OUT**

### MOON PATROL
Your beat: Sector Nine, home of the roughest, toughest thugs in the galaxy. Great 3D graphics and good music in this arcade conversion.
ROM *Normally £12.95* **OUR PRICE £6.95**

### MISSILE COMMAND
Another of the all-time classic arcade games that has you defending cities from missile attack. For one or two players.
ROM *Normally £14.95* **OUR PRICE £5.95**

### ZAXXON
One of the all time classics for the Atari, Zaxxon set new standards with its unique 3 dimensional battlefield and great graphics
DISK *RRP £9.95 disk*
CASS *£9.95 cass* **OUR PRICE £2.99**

### TAIL OF BETA LYRAE
Our A-Z of Atari Software series says "The ultimate 'Scramble' clone with superb graphics and music." A great horizontal scroller
CASS **OUR PRICE JUST 99p**

### FIGHT NIGHT
Fight Night brings you all the thrills of the boxing ring as you face the most brutal fighters ever in five separate battles, 1/2 players.
ROM *Normally £14.95* **OUR PRICE £7.95**

### STRANGE ODYSSEY
At the galaxy's rim, there are rewards aplenty to be harvested from a long-dead alien civilization. Fabulous graphic adventure
DISK *Original price £19.95* **OUR PRICE £7.95**

### ZORK 1
One of the most famous adventures of all time. Classic Infocom in the original box and packaging. A real bargain!
DISK *Originally £29.95* **SUPER PRICE £2.95!**

## GAMES

### BATTLEZONE
Another cracking arcade conversion that set new standards. Command a tank on the battlefield under attack from enemy tanks and flying saucers.
ROM *Normally £14.95* **OUR PRICE £7.95**

### SUPER BREAKOUT
Breakout was the original simple yet totally addictive game and this enhanced version will provide even more addictive fun. Needs paddles.
ROM *Normally £9.95* **OUR PRICE £3.95**

### LODE RUNNER
Another classic, perhaps the best of all platform games. Includes a unique extra that allows you to create your own levels.
ROM *Normally £14.95* **SOLD OUT**

### ONE ON ONE
Play basketball with two of America's top players in this great sports simulation which features realistic offensive and defensive moves
ROM *Normally £14.95* **OUR PRICE £6.95**

### CAVERNS OF MARS
Winner of one of the first Atari programming competitions, this was one of the first vertical scrollers and remains much sought after - *LAST FEW WITHOUT BOX BUT WITH FULL ORIGINAL MANUAL -*
DISK **LOW PRICE £4.95**

### KABOOM
Challenge the master bomber as he tries to bomb you out of sight. Great fun, especially for the kids who will love it
ROM *Originally £12.95* **SPECIAL PRICE £2.95**

### RIVER RAID
One of the classic scrolling games in which you fight your way up river, bombing and shooting everything insight.
ROM *Originally £14.95* **SPECIAL PRICE £3.95**

### MAXWELL'S DEMON
A simple yet challenging puzzle game which will get you totally addicted. In fact two games in one for double the fun
DISK *Originally £9.95* **OUR PRICE £1.99**

## APPLICATIONS

### TYPO ATTACK — NEW!
A typing trainer based on the Space Invaders concept in which you hone up your typing skills by blasting falling letters. An enjoyable way to learn.
ROM *Normally £12.95* **OUR PRICE £6.95**

### SKYWRITER — NEW!
Recreate a word from its parts which float across the screen on clouds. A simple concept but one which teaches in an interesting way. Ages 5+
ROM *Original price £12.95* **OUR PRICE £5.95**

### MASTERTYPE
Now anyone can learn to type whilst playing a challenging game. One of the original 'game based' typing tutors and a bargain priced ROM!
ROM *RRP £14.95* **OUR PRICE £2.95**

### LETTER WIZARD
For those who need a little more sophistication in a word processor, Letter Wizard gives you all of the features you would expect
DISK *Original Price £19.95* **NOW £5.95**

### INVITATION TO PROGRAMMING 2
Entitled Writing Your Own Programs, comprises TWO cassettes and TWO workbooks and does not require Invitation To Programming 1.
CASS *Original Price £12.95* **OUR PRICE £2.95**

## APPLICATIONS

### MUSIC PAINTER
An exciting educational program that helps to teach music by using colours instead of notes. For children or adults alike
DISK *Originally £14.95* **OUR PRICE £7.95**

### MACRO ASSEMBLER
The Macro Assembler will allow you to create your own machine language games and applications 5 times faster than with the Assembler Editor
DISK *Normally £19.95* **OUR PRICE £7.95**

### PLANETARIUM
A fascinating look at the heavens. Over 1200 stars, 88 constellations, the solar system and more than 300 deep-sky objects are depicted -1050 DRIVE ONLY - please state when ordering if you have a US Doubler
DISK *Normally £16.95* **OUR PRICE £ 6.95**

### PROOFREADER
Users of Atariwriter will be delighted with this, the long lost spelling checker for the Atariwriter cartridge!
DISK **OUR PRICE £5.95**

### BASIC CARTRIDGE
Some programs, especially some early public domain programs won't run on the XL/XE but they will if you plug in the old version of Basic.
ROM **OUR PRICE £3.95**

## EDUCATION

### JUGGLES RAINBOW
A first computer experience for children aged 3 to 6 that teaches the concepts of above, below, left and right plus letter recognition
DISK/CASS **OUR PRICE £5.95**

### JUGGLES HOUSE
Another for 3 to 6 year olds teaching the concepts of inside, outside, upper and lower with Juggles' House and Toyshelf.
CASS **OUR PRICE £5.95**

***SPECIAL OFFER - PURCHASE BOTH JUGGLES PROGRAMS FOR JUST £9.95!***

## BOOKS

### EASY PROGRAMMING FOR YOUR ATARI MICRO
This book went out of print 3 years ago and we have been searching for a replacement ever since. We are absolutely delighted to have found more stocks of one of the best beginner's books ever published.
**NEW REDUCED PRICE £4.95**

### MICRO ENQUIRER
A large format book that covers the world of micros in general with some specific Atari sections. The book contains a lot of worthwhile background information on home computing
*Published price £8.95* **OUR PRICE £2.00**

### ATARI ADVENTURES
An excellent book written by adventure expert Tony Bridges covering adventures in general and showing how you can write your own adventures .
*Published price £5.95* **OUR PRICE £1.50**

### WRITING STRATEGY GAMES
If you are fed up with simple arcade style games but are not sure of the maths required in writing 'thinking' games like chess here is a book that will help you out.
*Published price £5.95* **OUR PRICE £1.50**

# ORDER FORM

## ALL ITEMS FOR XL/XE

### NEW SOFTWARE

| Qty. | Title | Price | Total |
|---|---|---|---|
| | BLUE MAX | £2.95 | |
| | BOULDERDASH II | £2.95 | |
| | CONFLICT IN VIETNAM | £5.95 | |
| | CRUMBLE'S CRISIS | £2.95 | |
| | COLOSSUS CHESS 4 | £6.95 | |
| | DECISION IN THE DESERT | £5.95 | |
| | ENCOUNTER | £2.95 | |
| | ETERNAL DAGGER | £8.95 | |
| | FIELD OF FIRE | £6.95 | |
| | FOOTBALLER OF YEAR | £1.95 | |
| | INTERNATIONAL KARATE | £4.95 | |
| | JINXTER | £7.95 | |
| | KENNY DALGLISH | £2.95 | |
| | LEAGUE CHALLENGE | £1.95 | |
| | NATO COMMANDER | £5.95 | |
| | PAC-MAN | £6.95 | |
| | PANZER GRENADIER | £9.95 | |
| | SARGON III CHESS | £5.95 | |
| | SMASH HITS 7 | £3.95 | |
| | SPEED HAWK | £2.95 | |
| | SPINDIZZY | £4.95 | |
| | SUN STAR | £2.95 | |
| | TRIVIAL PURSUIT | £4.95 | |
| | Total | | |

### SERIOUS SOFTWARE

| Qty. | Title | Price | Total |
|---|---|---|---|
| | BASIC CARTRIDGE | £ 3.95 | |
| | INV TO PROGRAMMING 2 | £ 2.95 | |
| | JUGGLES HOUSE | £ 5.95 | |
| | JUGGLES RAINBOW | £ 5.95 | |
| | JUGGLES RAINBOW/HOUSE | £ 9.95 | |
| | JUGGLES RAINBOW - DISK | £ 5.95 | |
| | LETTER WIZARD | £ 5.95 | |
| | MACRO ASSEMBLER | £ 7.95 | |
| | MASTERTYPE | £ 2.95 | |
| | MUSIC PAINTER | £ 7.95 | |
| | PLANETARIUM | £ 6.95 | |
| | PROOFREADER | £ 5.95 | |
| | SKYWRITER | £5.95 | |
| | TYPO ATTACK | £6.95 | |
| | Total | | |

### PUBLIC DOMAIN ETC.

| Qty. | Title | Price | Total |
|---|---|---|---|
| | ISSUE 58 DISK | £ 2.95 | |
| | 8-BIT REFERENCE GUIDE | £ 6.95 | |
| | TURBO BASIC | £ 3.95 | |
| | Total | | |

### BOOKS

| Qty. | Title | Price | Total |
|---|---|---|---|
| | EASY PROGRAMMING | £ 4.95 | |
| | MICRO ENQUIRER | £ 2.00 | |
| | ATARI ADVENTURES | £ 1.50 | |
| | WRITING STRATEGY GAMES | £ 1.50 | |
| | Total | | |

### GAMES SOFTWARE

| Qty. | Title | Price | Total |
|---|---|---|---|
| | BATTLEZONE | £7.95 | |
| | CAVERNS OF MARS | £ 4.95 | |
| | FIGHT NIGHT | £ 7.95 | |
| | JOUST | £6.95 | |
| | KABOOM | £ 2.95 | |
| | MAXWELLS DEMON | £ 1.99 | |
| | MIDNIGHT MAGIC | £7.95 | |
| | MISSILE COMMAND | £ 5.95 | |
| | MOON PATROL | £ 6.95 | |
| | NIBBLER | £1.95 | |
| | ONE ON ONE | £ 6.95 | |
| | RIVER RAID | £ 3.95 | |
| | ROBOTRON 2084 | £ 6.95 | |
| | STAR RAIDERS 2 | £7.95 | |
| | STRANGE ODYSSEY | £ 7.95 | |
| | SUPER BREAKOUT | £ 3.95 | |
| | TENNIS | £6.95 | |
| | ZAXXON - CASS | £ 2.99 | |
| | ZAXXON - DISK | £ 2.99 | |
| | ZORK | £ 2.95 | |
| | Total | | |

### PAGE 6 SOFTWARE

All on disk unless shown

| Qty. | Title | Price | Total |
|---|---|---|---|
| | TRANSDISK IV | £12.95 | |
| | TARITALK | £19.95 | |
| | MINI OFFICE II | £14.95 | |
| | SPELL ME - Disk | £ 6.95 | |

### CASSETTES

see inside front cover

| Qty. | Title | Total |
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| | Total price post free | |

### 99p CASSETTES

| Qty. | Title | Price | Total |
|---|---|---|---|
| | TAIL OF BETA LYRAE | £ 0.99 | |
| | | | |
| | Total | | |

***FREE NIBBLER -***
*IF ORDER TOTALS £10 or more (ex. postage)*
*DISK ONLY - TICK IF REQUIRED* ☐

### TOTALS

| | | |
|---|---|---|
| Software | £ | |
| Books | £ | |
| Post and Packing on above | £ | 1.00 |
| Public Domain | £ | |
| PAGE 6 Software | £ | |
| Total | £ | |

## TELEPHONE ORDERS 0785 213928

***NOTE:*** ***Post and packing as shown MUST be added to all software excluding special cassettes, public domain and PAGE 6 Software. Most goods will be despatched within a few days but please allow up to 28 days for delivery***

Name

Address

Total Order £

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ST File

# MICROPROSE FORMULA ONE GRAND PRIX

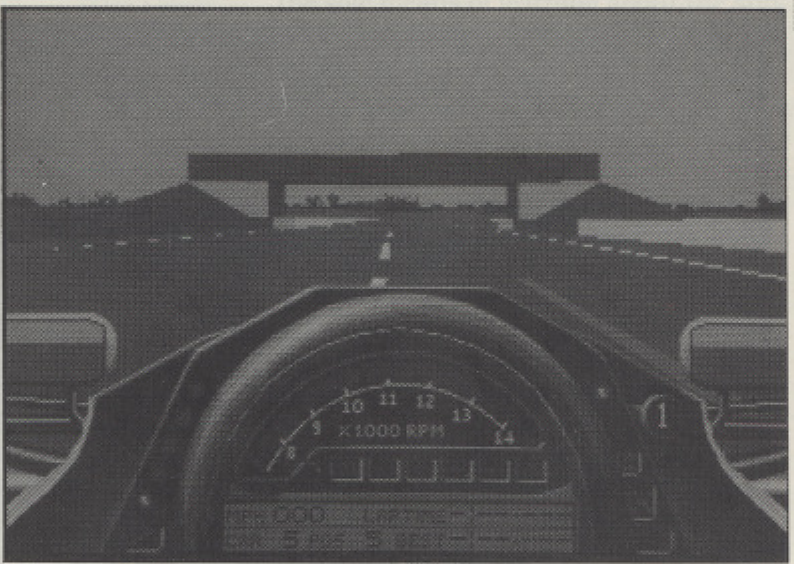
Being one of the 26 drivers that make it to Formula One status is certainly something desired by everyone who has ever sat in a racing car. The thrill of man and machine roaring around a race track for an hour and half is something only experienced by a select few.

As computer games become more and more advanced it's now possible to simulate more accurately just what is required to make the best racing driver in the world. In the past there have been numerous racing games of differing styles from Pole Position to Vroom, but never before has a game come so close to giving you all the thrills of F1 on the ST.

The first thing that hits you about this product is the quality of the presentation. The graphics are absolutely exceptional throughout and the speed of the polygon manipulation for both the track and the other cars is without a doubt among the fastest yet seen on the ST.

Formula One Grand Prix is, basically, a very precise simulation of the Formula One world circuit. Beginning in Phoenix you must make sure that your career stays on target throughout all 16 tracks so you can become the world number One. Simple as that.

All of the racing is presented in a very 'flight sim' sort of way. Your view is from inside the car with the track snaking off towards the horizon however, in true simulator style, you can switch views to watch the cars from anywhere around the track.




Unlike many other racing games, strategy is an important aspect in the game. Between races you must control all the variables that effect the performance of the car. Wing angles, gearing, and brakes can all be changed to make sure that you car is best suited to the track on which you are racing. Also, whilst in the middle of a race you can pop into the pits to have a quick tweak of anything that you feel may be causing a problem.

Control is by means of either joystick or keyboard, or a combination of the two. I was extremely surprised at just how accurate and responsive the controls are. Many race games, especially the 3D perspective ones, are normally a bit sluggish due to all the math and number crunching being done by the computer. By clever use of their flight sim graphic manipulation techniques though, Microprose have managed to produce a very slick and smooth product. There's nothing worse than a game where the sluggishness of the graphics forces you to ludicrously oversteer and bounce about all over the place!




However pretty or clever a game may be though, it doesn't mean diddly if the game is a pig to play. Fortunately, Grand Prix is a thoroughly playable game that will keep you ensconced for absolutely ages.

Fans of the "put your foot down and hope for the best" genre of racing games will doubtless have a spot of bother with this. You need to be able to think just like a racing driver to be good at it. The strategy and planning is almost equally as important as the actual driving, this isn't to say that it doesn't help to know what you're doing behind the wheel though! Being able to drive out in the real world is certainly going to help you somewhat. Judging bends and chicanes accurately is extremely important and you'll notice that the car reacts just as you would expect.

> **" definitely the very best racing simulator "**

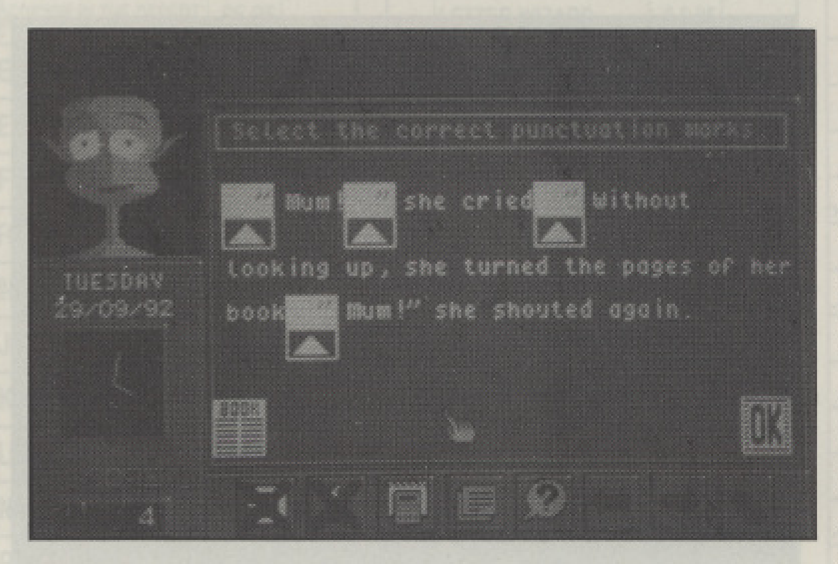
As I mentioned earlier, the presentation is absolutely top notch. The graphics are fast and extremely well drawn and the sound effects are surprisingly realistic bearing in mind the shortcomings of the ST sound chip.

Overall I have to say that this is definitely the very best racing simulator to be released on the ST so far. It is exquisitely presented and has enough depth of play to attract the simulator nuts as well as racing game junkies. Certainly one of the most impressive titles to be released on the ST in the past few months.

- ***SIGHT AND SOUND*** *- The graphics are extremely well drawn and ludicrously well rendered whilst the sound is of more than acceptable standard*
- ***GAMEPLAY*** *- More than just a racing round a track type thing. A great deal of strategy is required to be good at this!*
- ***VERDICT*** *- An accurate simulation of the Formula One Grand Prix circuit. If you're looking for the definitive racing game this is probably it!*

| | |
|---|---|
| Title: | MICROPROSE FORMULA ONE GRAND PRIX |
| Publisher: | Microprose |
| Price: | £39.99 |
| Reviewer: | John Davison jnr. |

# THE NEXT STEP?




Having set the pace for educational software with their terrific Fun School series, Europress Software are now expanding their range with the ADI series. Most educational programs are aimed at younger children, but ADI is designed for 11 year olds and upwards. Subjects to be released over the coming months include maths, English, and French, and needless to say all are aligned with the appropriate National Curriculum attainment targets.

The series is named after the theme character, ADI, an extra-terrestrial from the asteroid M823. For some reason he's inhabiting your computer and while there intends to help you use it as an educational tool. He acts as your guide, tutor, and friend as you work your way through each of the subjects. The software designers have tried to give ADI a personality, so he interacts with you in various ways. For instance, if you take too long over answering questions he'll fall asleep, or if you upset him in some way he'll sulk or get angry. He also checks and records your performance, comments on your progress, tells jokes to keep you amused, encourages your efforts, and periodically gives you games to play to prevent you becoming bored.

## THE ENVIRONMENT

An ADI subject module consists of two main parts, each on its own disk. These are the "Environment" which forms the core of the system, and various "Applications" which are loaded into it. Each user has to make his own copy of the environment disk, as his own personal progress details are recorded here.

The environment contains a Help facility, which explains the various controls available; a realtime clock showing the current time and date; your current score; and the controls for loading and terminating the required application. There's also a "Games" section, more of which anon.

In addition there's a "Tools" section, which gives access to Notebook, Calculator, Diary, Letter Writing, Letter Reading, and Control Panel facilities. The Notebook provides a small scratchpad for making notes, while Diary gives you up to six pages of free-form diary entries. The Letter Writing facility allows you to write a letter to another ADI user and save it on disk. The other person then uses ADI's Letter Reading facility to load it from disk and read it. Diary and Letter facilities are password protected, so only those intended to read them can do so. The mouse operated Calculator provides four arithmetic operators, square root, square, reciprocal, and reverse sign functions. Control Panel allows you to do such things as set date and time, reinitialise a session, and set the onscreen clock to digital or analogue form.

The environment also has a "Document" function. This is like a mini encyclopaedia, containing various facts supplemented by animated graphics. Its fairly random range of topics include Europe, Proverbs, Food Chain, Origin of Man, Endangered Animals, Volcanoes, the Planets, Flow of Blood, and Birth. Yes - sex education by computer, no less! It's all very basic, but a useful bonus. The applications load their own data into this function, replacing that provided by the environment. This usually shows the basic rules and facts about the topics being studied.

## APPLICATION MODULES

Europress supplied the English 11 and Maths 11 modules for review. The number indicates the target age group, so these are for 11 year olds. English 12 and Maths 12 will be available soon, with modules for 13 and 14 year olds to follow in the Autumn. French modules are also planned.

The modules are large, although they'll run on any ST(E) with double sided disk drive and colour display. Europress claim that each contains hundreds of activities and I can believe this, having spent many hours using the programs and still not covered everything. As you work through the activities you're awarded points for correctly completing them. Points gain you access to the games supplied as part of the environment, and these include versions of Breakthrough, Pacman, Battleships, a platform game, and sliding tile and jigsaw puzzles. You start with access to just one, and as your score increases so does the variety of games available.

## ENGLISH 11

English 11 consists of four major sections, called Discovering Words; Using Words; Understanding Words; and Phrases and Sentences. Each section contains several topics, each with many associated activities. There's just not space here to describe everything in detail, so I'll just list the topics covered. These are nouns; pronouns; verbs; adjectives; adverbs; synonyms; antonyms; prefixes; suffixes; correct use of words; spelling patterns and rules; use of capital letters; vocabulary and meaning of words; similes and metaphors; sayings; punctuation; and various word quizzes - enough to keep you busy for a l-o-n-g time.

Each topic is theme based, and study text for this is loaded into the environ-

ment as a "Book" function. For example, the nouns topic uses Cook's Expeditions as its theme, while for adjectives it's First Men on the Moon. By clicking on the Book icon you can quickly access the text, and reading this will help you correctly complete the activities.

Each topic starts with definitions and examples of the subject to be covered. Then you're usually given practice at recognising words of the type being studied, by selecting them from a list containing words of different types. You may then be asked to use the words by fitting them appropriately into given sentences. You may also have to form words from other words, e.g. make adjectives from given nouns, or complete a word with its correct ending. You also have to find and correct errors in given phrases, sentences, or paragraphs; and find words in a list or sentence matching a given definition.

After answering each question you're treated to a short but amusing animation sequence, the outcome of which depends on whether your answer is right or wrong. Your efforts elicit various reactions from ADI ranging from sugary praise to faintly abusive encouragement, accompanied by various bleeps, whistles, and various facial expressions. If you progress to ADI's satisfaction you'll see your current score increase, improving your chances of playing more games.

Your progress is stored on the environment disk, and is loaded in again at the start of subsequent sessions. The progress report is simple, showing only how many activities were completed this session and month to date, plus session and cumulative scores expressed as marks out of twenty. You can also request a slightly more detailed display showing major topics and charting your monthly results out of twenty for up to a one year period.

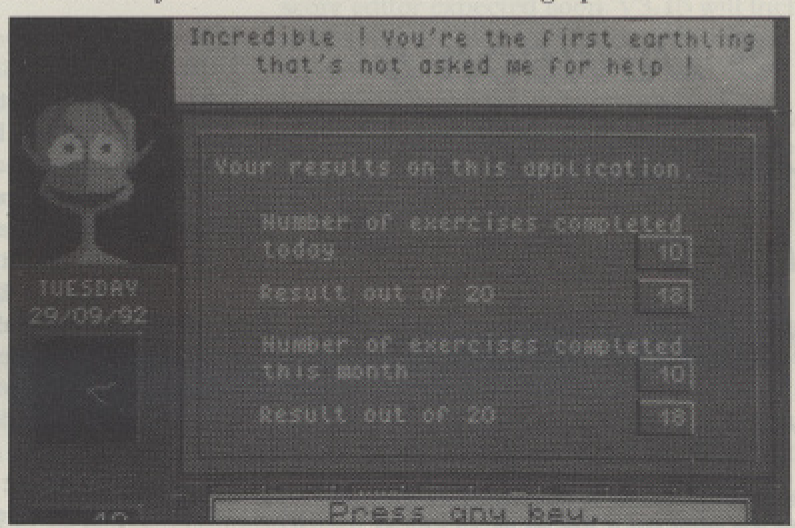
## MATHS 11

The Maths 11 module follows the same pattern as the English 11 module, so I'll cover it more quickly. As before it's divided into sections, topics, and activities. The activities are wide ranging, involving direct interaction via the screen, or sometimes requiring "offline" work with pencil and paper. You can also make good use of that onscreen Calculator here. However, when displayed it sometimes obscures part of the problem you're trying to solve and there's no way of moving it to a more suitable place.

The Symmetry section includes line and rotational symmetry, and requires you to plot reflections of points, lines, triangles, and quadrilaterals onscreen using the mouse.

Simple Figures covers triangles, quadrilaterals, and geometric construction. This last topic requires you to draw specified constructions on paper, measure particular parts of it, and input the results for checking.

Shape and Space is all about perimeters, areas, and volumes. In some of the activities you have to estimate values from onscreen diagrams, so getting the "right" answer can sometimes take several attempts.




Numbers looks at number operations, proportions, percentages, and directed numbers.

Algebra is a very basic introduction to the subject, covering simple equations and functions. Strangely, the activities don't use algebraic notation although this is used in the module's "Documents" section. The activities were disappointingly short too - you're only ever asked a couple of questions in each session.

Statistics again is just a brief introduction, covering means, bar charts, and pie charts. Once more you're only asked a couple of questions in each session. Perhaps later modules will include more.

As you might guess, Mental Calculations exercises your mental arithmetic capabilities. It starts with addition and subtraction, then goes on to multiplication and division, and finishes with series of operations.

## CONCLUSIONS

ADI isn't just an educational program, but potentially a complete educational system. It's not restricted to home use either, the two modules covered here would be equally useful at home or in the school classroom. Wherever it's used it's intended to be an education AID, and not the sole means of learning about the subject covered. Indeed one of its prime uses will be as a revision aid, or to check that you've understood a related classroom lesson.

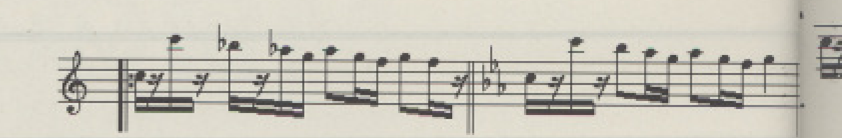
ADI's plus points are that it's very comprehensive, expandable, easy to use, and generally well implemented. Its general friendliness is helped by good use of graphics and animation, although use of sound is minimal. It scores highly on the "entertainment" front too, providing enough diversions to prevent users becoming bored.

Naturally, it also has a few niggling points. For instance, if you answer a series of questions on one screen and get one of them wrong, you're usually not told which one's incorrect. It deletes ALL the answers so you have to enter them all again without knowing where your previous mistake was. Also, although the Maths module generally supplies correct answers after several incorrect attempts, the English module doesn't. This is particularly irksome when combined with the multiple answer niggle mentioned above. One really bad fault is the slow response to keyboard input, making accidental typing of incorrect answers all too easy. Europress really must fix this.

Overall though, ADI is a welcome addition to the ever growing number of educational packages for the ST. It's certainly one of the best I've seen for children starting secondary education, and with its modular approach promises even more for the future. Looks like Europress have done it again!

**ADI**
**Europress Software**
**£25.99 per module**
**Reviewed by John S Davison**



# PORTABLE MUSIC?

## *John S Davison's regular guide to all the ways of making music on your favourite computer*

You spend days locked away in your home "studio" (a.k.a. your bedroom) with your ST, sequencer, and synthesiser perfecting the song that's going to make you famous. It's a neat little number using just piano, bass, and drum sounds, plus an incredibly sexy alto saxophone solo. You're really proud of it, so you save the sequencer file away on disk and rush round to your mate's place to demonstrate it to him on his MIDI setup. He loads the file into his ST sequencer, sets it playing, and ..... nearly dies laughing at the sounds he hears!

The piano has somehow transformed itself into a strange, swirly, synthy sound. That piledriving bass part sounds as if it's being played on a giant gong. The drums have disappeared altogether but their rhythms are being played at different pitches on a bass clarinet. And your beautifully seductive saxophone defies description. Not only is the sound wrong, but it seems to be out of time, some of the notes are missing, and the delicately applied pitch bend has been replaced by horrible octave-wide pitch swoops. The overall effect is total cacophony!

The cause of all this grief is that your friend has a different synthesiser hooked up to his Atari. The voice patch numbers in this are allocated to totally different sounds compared to those in your synth. Also, the MIDI channel used to play the drum sounds is different, but even if it were the same you'd probably find the mapping of drum sounds to note numbers in the drum kit don't match. For instance, the note used to trigger a snare hit on your synth could trigger crash cymbal on his. The sax solo line seems out of time because the sound it was played on had a slow attack, and notes were missing because your friend's synth can only play eight notes simultaneously, whereas yours can handle twelve. The pitch swoops resulted from a different default value for the pitch bend range - his synth was obviously much wider than yours. Aaaaaggghhhhhh!

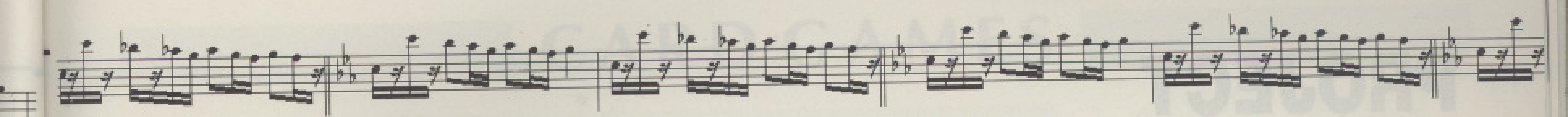
Fixing the problem can get very messy. You need to find the appropriate sounds on your friend's synth and alter all the program change commands in your sequencer file to call them up. Changing the drum track could be even harder - you may need to transpose all the triggering notes in the sequencer file so they play the correct instruments. There's nothing much you can do about the difference in polyphony, unless you want to go through the file selectively deleting notes where more than eight get played together. It's all very tedious and time consuming. What's more, you'd be faced with the same problem again each time you wanted to play back your song on a different type of synth.

The problem is that the original MIDI specification didn't say anything about allocating specific sounds to given program change numbers. The manufacturers all went their own ways, even to the extent of having different patch numbering for different models in their OWN ranges! This has been holding back the wider use of MIDI in general "consumer" applications, which require that a user can just load a MIDI file and press the Play button to hear the music played correctly. The answer was to extend the original MIDI specification to fill this loophole.

## GM TO THE RESCUE!

The MIDI Manufacturers Association have recently agreed such an extension, and have called it General MIDI (GM). It's intended to be an additional mode of operation on a synthesiser, which can be turned on and off as required. With GM turned off the synth can operate in any way the manufacturer dictates, as now. With GM on it assumes a personality common to all synths adhering to the GM standard.

All GM synths are at least 24 note polyphonic, with the notes dynamically allocated to channels so you don't have to worry about reserving a fixed number of notes for each channel. Also, all 16 channels must be available for use, with any of the sounds usable on any of the channels - except channel 10.





This has been reserved for key mapped percussion, i.e. drum and other percussive sounds mapped across the note range of the synth. Further, the percussive sound allocated to each note has been standardised, eliminating the problem of getting the wrong drum sounds as mentioned above.

Probably the most notable feature of GM is its standardisation of sounds, of which there are 128. The MIDI program change numbering has also been standardised, so that the same number always calls up the same sound, no matter what GM synth you're using. They're always numbered from 1 to 128 too - at present some synths use this while others use 0 to 127 to access their sounds - yet another area for confusion. The sounds are grouped by instrument type, for instance keyboards, which includes pianos, harpsichord, etc. Other groups include tuned percussion, organs, guitars, strings, brass, woodwind, and reeds.

## LEADS, PADS, AND SFX

There are also groups covering synth lead sounds for those scorching solos; synth pads for creating soft, dreamy, background soundwashes; and special effects for adding "atmosphere" to your music. Ethnic instruments are covered too, including bagpipes, sitar, etc. You'll also find sound effects such as gunshots, and bird tweets, plus a few unexpected things like the screeches made by a guitarist's fingers as he moves them over the fretboard - for that final touch of realism.

Even the slow attack problem discussed earlier has been addressed, as each of the sounds has to adhere to rules covering its sound envelope, as well as such parameters as timbre, pitch, volume, and velocity. Other areas have also been defined, such as default values for pitch bend and volume.

In the key mapped percussion area there's a "standard" drum kit, and also the possibility of alternative kits, such as a "jazz" kit, "electronic" kit, to name but two. The mapping should be the same though - a given note producing the same type of sound whatever the kit, e.g. a snare, or kick drum, or whatever, so switching between the kits should still produce acceptable sounds.

Overall then, the manufacturers seem to have done a pretty thorough job. But, I hear you say, if they all produce GM synths won't they all sound the same, so there'll be nothing to choose between them? This won't happen, in fact, as GM doesn't actually specify HOW the sounds should be produced. Each manufacturer uses his own sound generation methods, and each has its strengths and weaknesses. Although all GM synths produce the same general sounds there are likely to be significant differences in their subjective sound quality. Also, as I said earlier, GM is just an ADDITIONAL mode for synth operation, and the manufacturers are likely to include lots of other bells and whistles (literally?) when operating in non-GM mode.

## GM HERE NOW!

But how standard is standard? Roland produced the very first GM synth, known as the SC-55 Sound Canvas expander, but they announced it with something they called GS (General Synth) Standard, which is a superset of GM! It still behaves like a GM instrument, but has a total of 315 sounds, 9 drum kits, and a comprehensive set of sound effects built in. It can also emulate older Roland instruments such as the MT-32, CM-32L, and CM64 MIDI sound expanders. Other new Roland instruments supporting GS include the JV-30 keyboard synth, the JW-50 music workstation, the MT-200 combined sequencer and sound expander, and the CM-300, CM-500, and SC-155 sound expanders. Their Boss division has also just announced a super looking low cost (well, relatively) expander called the DS-330. This seems to be a cut down version of the Sound Canvas selling for about £379. Korg are also supporting GM with the announcement of their 03R/W sound expander, and Yamaha have joined the club by launching their TG-100 expander. So there's lots to choose from already, and no doubt there'll be lots more to follow.

Hopefully in the next issue I'll be giving you a user report on a GM instrument, as I'm currently trying to get hold of some GM/GS kit to test on your behalf. Join me then to see if it lives up to its promise.

## SNIPPETS

***....there's a new release of C-Lab's Notator*** sequencer/ score editor expected soon. V3.15 will include minor enhancements to V3.1 and the upgrade should be available to registered users for around £10.

***....C-Lab will also be launching*** a completely reworked version of Notator for the ST sometime next year. Called Notator Logic, it will be similar to the recently released Apple Macintosh program of the same name. Sound Technology, C-Lab's UK distributor, say the upgrade policy for existing Notator users hasn't been decided yet.

***....Steinberg have released a new "entry level" version*** of their Cubase sequencer called Cubase Lite. This uses the same graphical user interface as the full priced package, but can handle only 12 tracks. At £99 it's £300 cheaper than Cubase, so no doubt there are lots of other restrictions too!

***....Yamaha displayed a mass of new MIDI gear*** at the British Music Fair at Olympia in July. I've already mentioned the TG-100 GM sound expander, but there's also the TG-500 expander with a staggering 64 note polyphony; the SY-35 and SY-85 synth keyboards; the PSS-51 MIDI equipped home keyboard, the DD-12 MIDI drum box with pads you can play with drumsticks or your hands; and the RY-10 drum machine. The PSS-51 replaces the PSS-795, Yamaha's low cost entry level synthesiser popular with ST users everywhere.

***....as the British Music Fair is now a Trade Only show***, a new public music show is planned for 28-29 November 1992 at Wembley. If you're interested in music make sure you attend, as you'll be able to try out all the latest kit.

***....the Page 6 PD Library*** has just added four new music disks. These are ST704 Mozart's Dice; ST716 Cubase Arrangements; ST721 MIDI Songs Mixed Bag 5 and ST722 MIDI Songs Mixed Bag 6. Mozart's Dice looks particularly intriguing, as it's an attempt to check out Mozart's theory that certain kinds of music can be composed by random selection of musical phrases. He would have used dice to select the phrases, but here the whole thing is automated. The program randomly selects the phrases, writes the music onscreen (high-res monitor only) and plays the result to you via sound chip or MIDI! More details next time when I've had chance to investigate further.

***....finally, thanks to R.J. Potter*** of Upper Norwood, London for sending in the following tip for users of Steinberg's Pro-24 sequencer. To successfully export a MIDI Standard File from Pro-24 make sure you correctly set the right and left locators to cover the WHOLE song to be exported. The default values cover only the first sixteen bars, which can cause errors if your song is longer than this.

# A CABLE FOR TWO MONITORS

## *Steve Attwood shows how to connect a SCART monitor and the SM125 to an ST*

This article involves building of a cable to connect a Philips TV/Monitor via SCART to the Atari ST monitor port with a break in the middle to allow you to disconnect the ST from the Philips TV/Monitor and connect your SM125 monochrome monitor. By utilising breaks in the leads, you don't have to keep taking out the lead at the back of the computer when you want to swap between your colour and monochrome monitors, thus saving wear and tear. The total cost of the parts comes to about £8.50 (this will vary according to where you shop of course), and a parts list is included. Note that you should not disconnect the lead while the computer is still switched on as this will probably cause a reset and possible damage to the ST.

This lead/wiring diagram will be useful for people who already have a SCART lead and a mono monitor and don't want the expense of a monitor switch box, when you can achieve the same result for the cost of a few 9-pin connectors and covers.

The connector on the SM125 monitor needs to be removed and replaced as in figure 3. The pin numbers are read from the outside of the cable connector, looking in. If in doubt, the connectors should be physically numbered themselves - use those numbers in reference to the pin numbers in the diagram. Before you chop the SM125 monitor cable in half, take the cover off the 13-pin connector and make a note of the wire colours, according to which pin they go to - so you don't lose track when wiring up the new connector. (I don't doubt your technical expertise, but these are useful little pointers for someone who hasn't gained much experience in making cables).

These cables have been tested on a 1 Meg Atari 520STFM and the Philips TV/Monitor Model 2540 (the 17" model) as well as the 15" and 21" models. The SM125 Mono monitor was also tested.

***Figure 1 - The cable from the ST***

| | Atari ST 13-Pin | | 9-Pin Socket |
|---|---|---|---|
| Audio Out | 1 | ---------------------------------- | 8 |
| Mono Detect | 4 | ---------------------------------- | 4 |
| Green | 6 | ---------------------------------- | 5 |
| Red | 7 | ---------------------------------- | 6 |
| Horiz Sync | 9 | ---------------------------------- | 9 |
| Blue | 10 | ---------------------------------- | 3 |
| Monochrome | 11 | ---------------------------------- | 1 |
| Vertical Sync | 12 | ---------------------------------- | 7 |
| Ground | 13 | ---------------------------------- | 2 |

*Make the cable length for this piece about half a metre long - so you don't have to reach very far to change over the cables.*

***Figure 2 - The cable to the Philips Monitor***

```
9-Pin Plug                                SCART

1              Not Connected
2  ---------------------------------      4 -----------|
3  ------------------ 330 Ohm R ---------- 7            |
4              Not Connected                            |
5  ------------------ 330 Ohm R ---------- 11           |
6  ------------------ 330 Ohm R ---------- 15           |
7  ------ 330 Ohm R ----------| -------|---------- 16   |
                              |        |                |
9  ------ 330 Ohm R ----------|        |---------- 20   |
                                                        |
8  ------ 4.7K Ohm R -----------------|---------- 2     |
                                       |                |
                                       |---------- 6    |
                                          5 ------------|
                                          9 ------------|
                                         13 ------------|
                                         17 ------------|
```

***KEY***

| | |
|---|---|
| -------- Cable Link | -------4.7 Ohm R----- |
| \|------- Internal Link | Resistor Linked Between |
| \| Inside | the Cable and Numbered |
| \|------- Connector | Pin |

***Figure 3 - connections on the SM125 Monitor Cable***

**Connections on 9-pin plug**

| | |
|---|---|
| **Pin 8** | **Audio Out** |
| **Pin 4** | **Mono Detect** |
| **Pin 9** | **Horizontal Sync** |
| **Pin 1** | **Monochrome** |
| **Pin 7** | **Vertical Sync** |
| **Pin 2** | **Ground** |
| **Pin 6** | **Shield** |

***PARTS LIST***

| Item | Part No. | Price | Supplier |
|---|---|---|---|
| 13 Pin DIN Connector | JW95 | £1.45 | Maplin |
| SCART Connector | FJ41 | £1.20 | Maplin |
| 9-Pin 'D' Socket | RK61 | £0.60 | Maplin |
| 2 x 9-Pin 'D' Plugs | 2761537 | £0.99 | Tandy/Maplin |
| 9-Way Multicore | XR27 | £0.72-per Metre | |
| 3 x 9-Way Covers | | £0.80 approx. | |

(I used some spare covers from a scrap box)

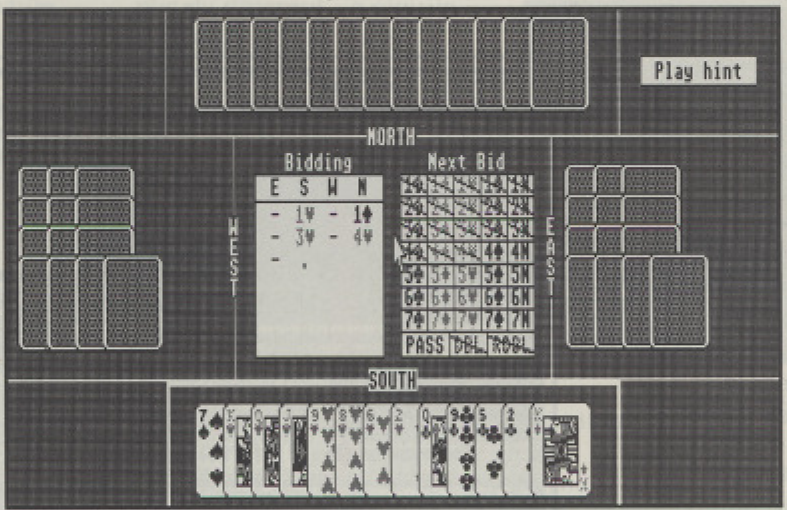
5 x 330 Ohm 1/4 watt Carbon Film Resistors, 1 X 4.7K Ohm 1/4 watt Carbon Film Resistor. (1/8th of a watt, metal film resistors are better, but the above will suffice)

ST File

# OMAR SHARIF'S BRIDGE

Bridge is a simple card game. You deal out all the cards and then take it in turns to play them face up. Whenever two of the same card appear the first person to shout "Bridge!" gets all the cards on the table... or is that a different game?

No, I remember... Bridge is that complicated one that comes in two parts: first the bit where you argue about which suit should be trumps and how many tricks one side is going to try and win - this is known as the 'bidding'; then the 'play' where you play whist with one of the hands face-up - whoever won the argument gets to play his partner's cards as well as his own so that he has more chance of winning.




Bidding the right 'contract' (i.e. how many tricks and which suit for trumps) is crucial to the game so many conventions have grown up to allow you and your partner to give each other as much information as possible within the very limited range of things you are allowed to say during the bidding. One of the standard systems used by many people in this country is called Acol.

If any regular reader has a sense of deja vu reading the preceding paragraphs it is simply because I used them in issue 52! Those of you who read issues 51 and 52 may remember that I wasn't too impressed by the two Atari bridge games, but that Oxford Softwork's Backgammon, Go and Chess were all excellent. This time we are looking at Oxford Softwork's Bridge, and as you might expect it is pretty good - certainly a lot better than the Atari ones.

Although Omar Sharif's Bridge (what's Omar Sharif's got to do with it anyway?) has many fine features, its biggest fault is exactly the same as the Atari versions: the documentation for the bidding conventions is completely inadequate! (They obviously didn't read my review and learn from it! Does anyone read my reviews? Its a lonely life being a reviewer - you sweat for hours over a hot keyboard producing these labours of love; months later they finally see print and then... NOTHING! I've reviewed over 130 games in these pages, but had no more than half a dozen letters, sob, sob! Where was I? Oh, yes, bidding documentation!)

The manual recommends that you get yourself a standard book on Acol and use that. But unfortunately Acol has many variations - for a start are they using a Weak One No Trump or a Strong one? The game seems to deviate quite a lot from the Acol I know so what you really need is detailed documentation about what exactly their bids mean. The two pages in the manual are nowhere near enough, either for the beginner who will get confused by the variations between the game and whatever book they are using, or for the experienced player who wants to know what the computer's bids mean so that he can confidently make more complex bids. (The American Five Card Majors convention is also supported, but I have never met anyone in this country who uses it!)

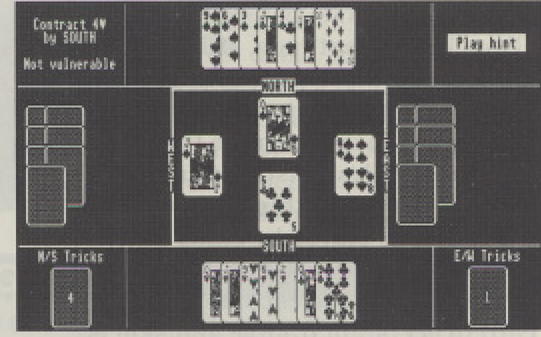
Anyway, apart from the odd deviations, most of the bidding is pretty good and the computer will give you a hint if you are stuck, so beginners can get straight into playing the game.

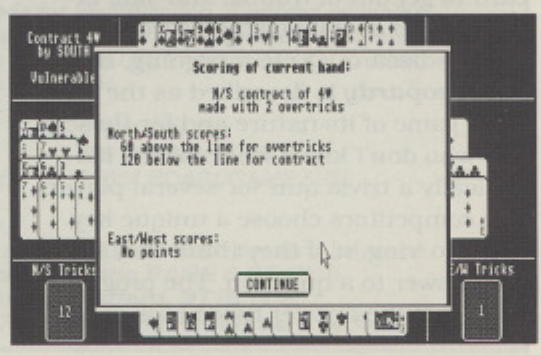
The actual implementation is generally excellent - all the information you need is on the screen or can be accessed easily from a pull down menu with the right button, and all the bidding and play is controlled very simply with point and click on the left button. Lots of options allow you to peek at other people's cards, replay any of the cards if you make a mistake or want to try something different, change the screen colours, play one of the other hands, etc.

You can also change the speed of play - slowing it down makes it think a little harder. It still plays at an acceptable speed, but gives the experienced played more of a challenge - though it can still make stupid mistakes! The art of computer bridge has not yet reached the dizzy heights of computer chess, so don't expect perfection!

For beginners there are lots of nice features - details of the rules of Bridge, Novice Mode which explains your mistakes, some Tutorial Hands which force a certain sequence of play with (partial) explanations, brief notes on playing techniques, an explanation of the score after each hand, and hints during bidding and play. There aren't really enough tutorial hands for a complete beginner - so you may still need to get a book on the subject as well, but the other features certainly make it worthwhile.

For the serious, experienced player it probably doesn't play quite a good enough game and with the lack of documentation on the bidding it may be a bit frustrating. But for the average player - the "perpetual beginner"! - who is not too worried if the bidding is no better than his own, Omar Sharif's bridge looks like a pretty good buy.

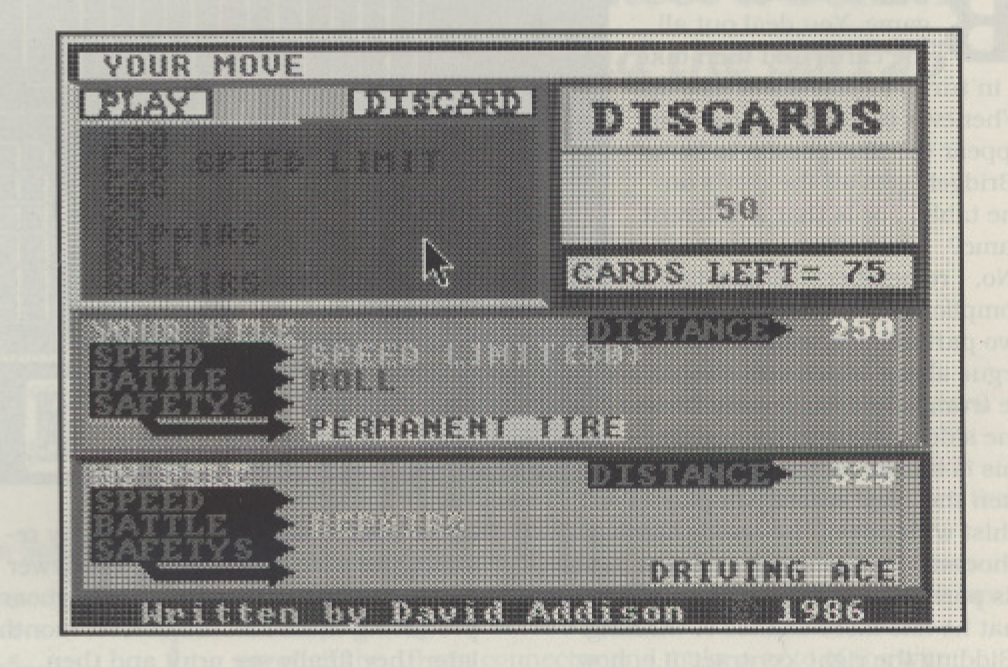



| | |
|---|---|
| Title: | **OMAR SHARIF'S BRIDGE** |
| Publisher: | **Oxford Softworks** |
| Price: | **£24.95** |
| Reviewer: | **John Sweeney** |

# PD WORLD
## Paul Rixon's

*Just as my joystick had recovered from testing out the last batch of PD games, here we are again at the time of year when PD World is dedicated to the very subject! There have been dozens of new entertainment disks since my last report and the only problem I've had is deciding which titles to review and which ones to leave out. In the end I had to shuffle the disks and pick out a random (well, almost) selection, so bear in mind there are plenty more goodies where these came from!*




## NO BOARD NEEDED!

First a selection of puzzles primarily for board game enthusiasts. **BOARD GAME FUN** contains five programs including the classic and highly playable ***Monopoly***, revised from an earlier version and now TT compatible. The graphics are as bold and colourful as ever. ***Fighting Sail*** is said to re-create the ship-to-ship combat of the Napoleonic period and is actually based on an Avalon Hill release called 'Wooden Ships and Iron Men'. You can take command of the USS Constitution during the war of 1812 or engage in single historical confrontations. Play involves steering your ship around the screen and lining up to fire broadsides at the enemy, while monitoring various bits of useful information.

On a less violent note, ***Milborne*** *(see picture)* simulates a French card game in which players take turns to draw cards in an effort to amass more than a thousand 'miles'. Distance cards will move you towards this goal but hazard cards can be played by either player to slow the other down. For each hazard card there is a corresponding remedy card to get out of trouble and skill is required in deciding which cards to keep, play or discard. Quite intriguing, this one. ***Jeopardy*** is described as the ultimate game of its nature and for those of you who don't know what this is, it's basically a trivia quiz for several players. The competitors choose a unique key press to 'ring in' if they think they know the answer to a question. The program decides if the answer typed in is correct, though you can use the dispute facility to override its assessment! To round off the disk there's a simple Tetris variant called ***Beyond***. Blocks constructed from three segments fall from above and you must toggle the position of the different parts to match up similar patterns. It's a demo version and play is limited to the easiest level.

## BLAST!

As usual there's no shortage of new material for shoot 'em up fanatics. Old hands in the 8-bit world will vividly remember Jeff Minter's epic Attack of the Mutant Camels and its follow-ups that were not released for the Atari machines. Mastertronic made an attempt to re-create the latter without Jeff's approval but (in his words) they 'relentlessly eradicated every ounce of playability'. Continuing his successful excursion into shareware marketing, Jeff has now released the genuine **REVENGE OF THE MUTANT CAMELS** for the ST. As you'd expect (if not, check out Llamatron!) the game plot is pretty weird but you can be sure there's a lot of blasting involved! You take the role of a rather threadbare-looking camel who is optionally accompanied by a large shaggy goat-type creature called an Ancipital. Your mission is to stay alive as you travel through 42 screens that are populated by rampant telephone kiosks, skiing kangaroos, Greenham Common 'Peace' Women, manic Minters, flying sheep and all the usual nonsense! Needless to say the graphics and sound effects (lots of digitised noises) are brilliant.

Back to the traditional stuff and **SPACED OUT** is a straightforward conversion of Galaxians by Paul Lay and Harvey Kong Tin, whose names will be quite familiar to regular Page 6 readers. Your joystick manoeuvres a space ship at the base of the screen and your intention is to zap the neatly ordered lines of aliens as they edge towards you. There are nine levels of action and the graphics are well designed but the most notable feature is an atmospheric start-up sequence containing excellent digitised speech.

Still on the shoot 'em up theme, **CYBERSTORM** from Budgie Licenseware is a 'must have' for anyone who's mad about Defender or Dropzone. Your job is to fly around the playfield, which scrolls as you move, and zap all the aliens in sight - but it's not that easy because the nasties are increasingly devious. You must use the radar scanner to check the location of enemy craft and try to destroy them quickly - if you take too long a mothership arrives and homes in on your position! You're supplied with a shielding cloak to make your ship invincible for a limited period and you are advised to use it! You're equipped with several smart bombs which destroy everything in view and bonus abilities can

be obtained if you find an elusive silver ball. As you progress through the levels your weaponry is suitably upgraded and there are extra lives and bombs on offer when you gain sufficient points. Following the initial 'beginners' levels a new factor is introduced - you have to rescue men by flying over them and transporting them to a 'keep'. If you don't recover the men the aliens drop tanks to wipe them out. It all gets more and more frenetic but if you can, try to pause for a while and take in some of the superb graphical effects. The music and sound live up to the high standard set by the program as a whole.

## CLASSIC VARIATIONS

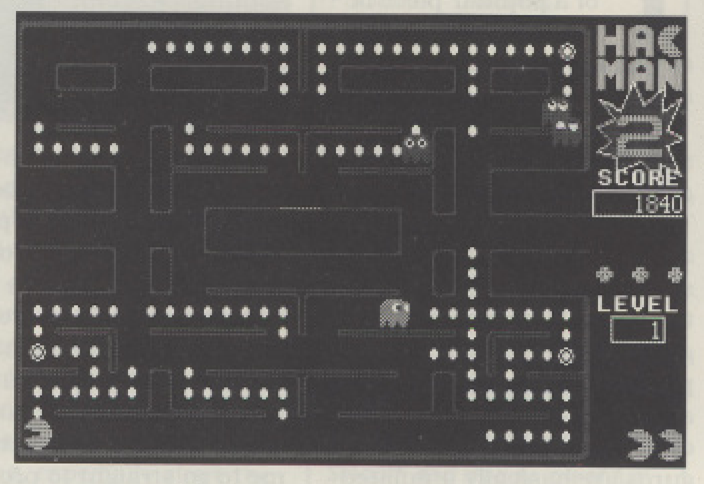
Pacman is a classic game in anyone's book and **HACMAN II** is the latest freeware version featuring a hundred new levels of action. There's no need for me to mention, of course, that you control the Pacman who has to gobble all the dots on the screen and avoid the pursuing nasties (oh well, too late!). The graphics are all professionally done with lots of colour and a wide variety of mazes over the different stages. The original Hacman was criticised for its lack of sound so the author has now included digitised sound effects throughout (a tad more variety wouldn't go amiss though!). The game includes secret warps, extra ghosts and a surprise or two for the really devoted - you'll have to play it to find out the details! If you haven't seen Pacman before you'd better get this game immediately, and if you have you'll probably want it even sooner!

## ADVENTURING

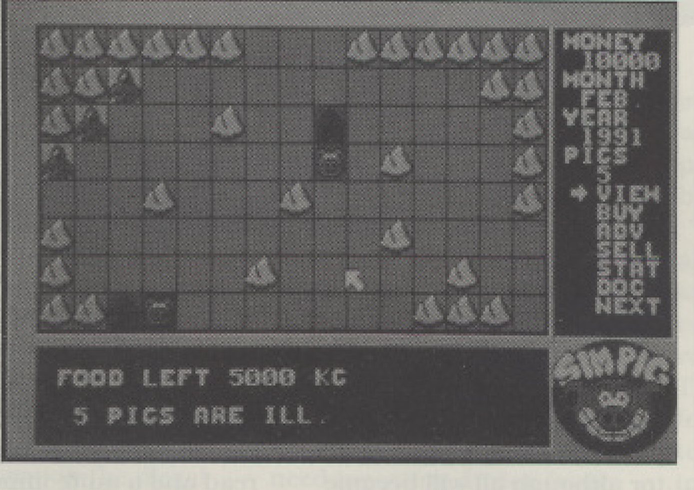
Adventures have yet to be fully discussed in PD World but there's room here to mention **PRIME TIME**, the latest split graphics/text adventure produced using the STAC system. It seems you are Dan Yell Flint, an explorer and collector of peculiar artifacts. On return from holiday your Grandmother calls to see you with a gift - a mirror, which you subsequently hang in the drawing room of your home. Strangely, something seems to entice you to move towards the mirror and run your fingers over the inscription... There's a flash and suddenly you realise you have become the image in the mirror, you are trapped and no-one can hear your screams. To the east you can see the drawing room and to the west is a long tunnel. A bundle lies on the floor - what do you want to do? With copy deadlines pending (or passed!) I didn't have a chance to complete the adventure but I would conclude that it's a typical puzzle with most of the usual commands, some reasonable graphics and a seemingly well constructed plot.

## SIM PIG?

And now something completely different - a simulation with a difference! These days there seem to be simulations of everything from planes and cities to cars and the world - you may be wondering what will come along next. Well, how about **SIM PIG**!! This game from AnimalSoft in Holland is subtitled 'The advanced real-time strategic pig simulation' and indeed that's exactly what it is! Your aim in life is to become an ace pig-keeper but it's not as easy as you might think. You begin with a fixed amount of cash and a few pigs. You can buy more piglets but you first need the land to accommodate them, and then ensure they have plenty of food. Sometimes the pigs fall ill and you have to call in the Doctor. When the pigs are old enough you can sell them at market to raise more cash but the neighbouring farmer has similar plans to you and if you choose the wrong time to sell you could be heading for bankruptcy. The game is played in 'rounds' of one month each between two preset dates and you can choose when to continue with the next cycle. Naturally there are one or two unexpected problems in store... Sim Pig is a humorous, well designed and eminently playable simulation. You've really got to play it to believe it's true!




*Pictures - HACMAN II (above) is a variant of the classic PACMAN with a vengeance! Loads of new features while simulation fans can enjoy a whole new experience in the highly entertaining SIM PIG (below)*




## NEXT YEAR!

That's all for now but remember there'll be more PD games reviews in twelve months time! In the meantime, check the ST Library updates for info on all the latest disks. In next issue's PD World I'll be taking a look at educational software so if you have any comments or recommendations, I'd be very pleased to hear them. <BFN>

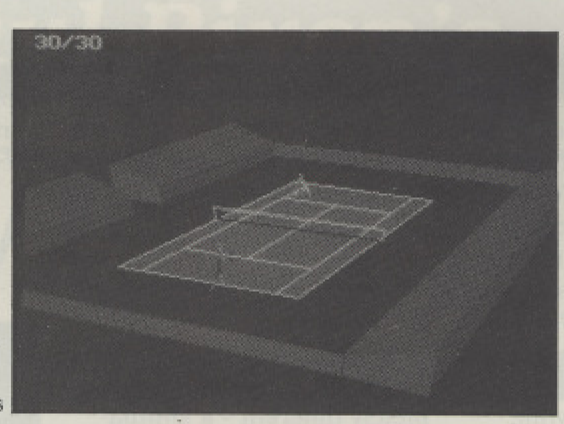
### HOW TO GET THEM

***The disks featured in PD World can be obtained from the PAGE 6 ST library. When referring to a specific disk, please use the unique reference code for identification. A printed catalogue describing all the library disks in detail is available from PAGE 6 at a cost of £1.95, refundable against the first few disks ordered. This includes a copy of THE PAGE 6 CATALOG DISK, which is otherwise priced at £1. The disks featured this issue are:***

***ST504 HACMAN II***
***ST551 SPACED OUT***
***ST605 REVENGE OF THE MUTANT CAMELS***
***ST611 CYBERSTORM***
***ST655 SIM PIG***
***ST675 PRIME TIME***
***ST684 BOARDGAME FUN***

***Prices for standard disks are £2.95 each or £2.50 each for five or more but prices are lower for members of the PAGE 6 ST Club***
***Write to PAGE 6, P.O. Box 54, Stafford, ST16 1DR***
***Telephone 0785 213928 or FAX 0785 54355 with credit card orders***

# INTERNATIONAL 3D TENNIS




This is a budget rehash of a popular piece of software seen a couple of years ago. The game is still a good recreation of the sport.

The opening and loading screens come complete with a good rendition of the BBC's Tennis music for Wimbledon and this sets the scene for a strong sound based portion to the game. Graphically the game is idiosyncratic with impressionistic tennis players in a strange two-and-a-half dimensional display. The figures are basically animated polygons but these figures do manage to move and act like humans and possibly their strange shapes helps the fluidity of the movement.

The game plays very well with various opening options available, these range from the level of play for the player and the level of opponent skill to game type and subsequently to court type and winnings level in tournament mode. My recommendation to new players would be to try the playing style out in the amateur level and find a camera angle suitable to your playing style. I found the side on view hard to control but the head on view gave a far more comfortable control system. Once the actual playing to hit the ball system is understood it seemed most comfortable to me to go straight to pro-mode and play the tournament. As in most sport sims the top level gives the best simulation and offers the best challenge.

This top level offers ball spin court placement and specialised serving in fact everything found in the actual sport. The game even provides well sampled speech to call the umpire's commands and scores. A little sad he only calls the players by the colour of their strip ("Advantage Black", "Game White") but the problems with character and speech recognition make this the safe option.

Once the player becomes used to the strange graphic representations the game becomes a pleasure to play and from there becomes quite addictive. Of the Tennis games I have seen this certainly contains all the elements I look for and offers a good level of competition. The two player option is also attractive using two joysticks, my only reservation being that camera angles need choosing with care to ensure fairness to both.-

## FACTS

| | |
|---|---|
| Title: | INTERNATIONAL 3D TENNIS |
| Publisher: | Gremlin/GBH |
| Price: | £7.99 |
| Reviewer: | Damon Howarth |

## SIGHT & SOUND

*Idiosyncratic but usable graphics, sound implementation very strong*

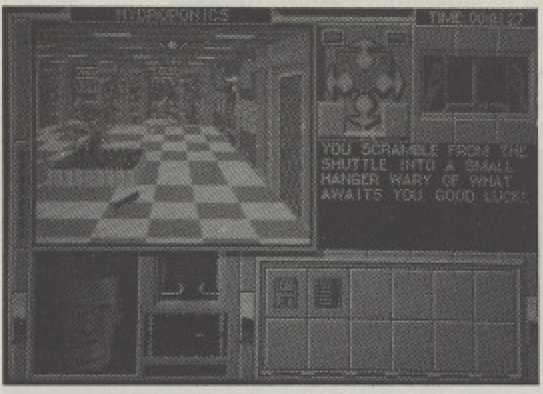
## GAMEPLAY

*Highly enjoyable and easy to use*

## VERDICT

*The best tennis I have played on the ST, I believe a version two is out for other machines though*

# FEDERATION QUEST 1 - B.S.S. JANE SEYMOUR




## FACTS

| | |
|---|---|
| Title: | FEDERATION QUEST 1 - B.S.S. JANE SEYMOUR |
| Publisher: | Gremlin/G.B.H |
| Price: | £9.99 |
| Reviewer: | Damon Howarth |

## SIGHT & SOUND

*Very strong and most apt fx*

## GAMEPLAY

*Good although a little non-intuitive-*

## VERDICT

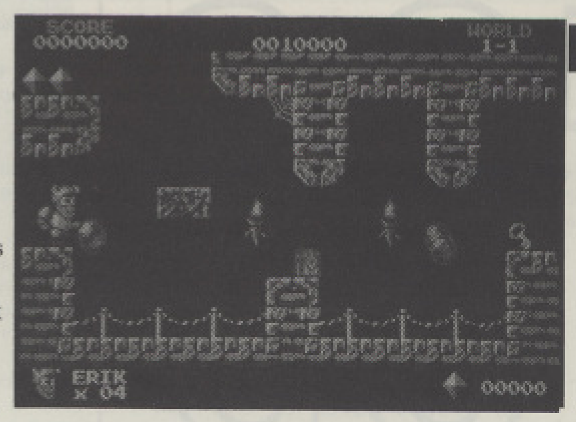
*Almost Dungeon Master in space, I hope there is a number 2 soon*

This is effectively an adventure game in the style of Dungeon Master but before the reader becomes too excited it is perhaps a slight exaggeration to compare this to the fabled ancestor although all will become clear. The setting is aboard a lost and floating space fleet and the eventual aim is to mend the Mother Ship Jane Seymour. This can only be accomplished by proceeding in order through the numerous daughter ships and obtaining passes up the line to eventually enter the last ship. There are several unpleasant critters around awaiting to damage your health and use you to supplement their diet. There are also computer terminals to be tapped and problems to be solved. Most importantly there are robots to be activated to help you.

The control interface is complex but the detailed instructions sort out all the functions after a long and careful read. Once the two disks have been read and a quite impressive sound and graphic sequence has been initiated a 'spot the alien in the handbook' protection appears before the game starts. The initial screen gives the personal view as seen in Dungeon Master and the like and contains a quite full and complex control panel. This is my main grumble, the panel lacks the intuitive user friendliness that Dungeon Master had and without the manual to guide you for the first couple of hours it is possible to get into serious difficulties both moving and manipulating objects. I found great difficulty picking things up for instance. Once the interface is mastered however the game blossoms into a strong graphic adventure.

It is a pity that role is not choosable, the player is stuck as a right handed male, but this does not detract greatly since you can imagine the character as whatever you wish. The game has room for a great deal of exploration and a variety of actions although it is fairly linear in design. I know from my own RPG creations that space games are far harder to keep interesting than standard fantasy and as such this game does break new ground with some originality and is a worthy addition to any collection.

# ERIK




Erik is a Viking of absolutely no relationship to the Monty Python type. While his comrades are off pillaging and arsoning he stays at home building computerised robots, scuba diving and other jolly pursuits. The game centres around his problems following the re-appearance of the mischievous (evil?) god Loki who feels the lifestyle is damaging to his image.

So lo it came to pass that Erik's peaceful lands were turned into a dangerous platform game that would set the peaceable Norseman on a death defying quest. Loki was obviously employed by Atlantis since this quest became a rather challenging budget game. The four worlds through which Erik leaps each contain seven levels and of course each have their own end of level guardian to make life difficult in transitional stages. The plot is not original but is well executed. Erik is a fair sized dumpy sprite in the cartoony style beloved of the better platform romp. On his travels he may find cash, death, jewels, death extra weapons and shields, death, and shops. With luck there may even be the odd hidden level and some death. It is a very easy game to die in since, until extra shielding can be found, it only takes one direct hit to send Erik back to his starting blocks. On the plus side his reincarnations keep most of the goodies found previously, he just loses the special weapons.

In many ways this game goes back to the Manic Miner and Jet Set Willy days of platforming and the multi-coloured smooth scrolling environment complements this well. The control mode is good with the joystick giving precise instructions to the sprite and there is a reasonable sound track and fx in the game but none of the Bomb the Bass urgency found in Bitmap creations.

I found the game hard to dislike although I felt that the somewhat tricky start was discouraging, especially since the game appears to be aimed at younger players. Perhaps my mind misses some nuances of play but I felt the game was pitched just a little too hard.

I did enjoy the colour and gameplay and found it challenging enough to go back to on regular occasions. There are certainly many worse platform games about.

### FACTS

| | |
|---|---|
| Title: | ERIK |
| Publisher: | Atlantis |
| Price: | £7.99 |
| Reviewer: | Damon Howarth |

### SIGHT & SOUND

*Adequate noises and music, good cutesy sprites which scroll smoothly*

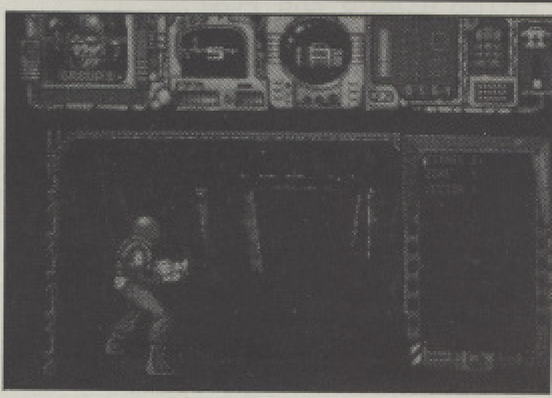
### GAMEPLAY

*Smooth and steady, great fun and easy to control*

### VERDICT

*A pleasant game that is worth a look - perhaps a bit hard at first*

# NARCO POLICE



### FACTS

| | |
|---|---|
| Title: | NARCO POLICE |
| Publisher: | Gremlin/G.B.H |
| Price: | £7.99 |
| Reviewer: | Damon Howarth |

### SIGHT & SOUND

*Excellent sound and effects, large strong sprites and smooth controls*

### GAMEPLAY

*Overly complex, seemingly for the sake of it*

### VERDICT

*Almost a good game - the framework is there but the finish isn't - try it with reservations*

The year is 2003 AD the scenario one of dark Blade Runner society tensions. This means that one in five of the world's population are abusing narcotics and that world governments wish to clamp down on the illegal drug running.In order to correct this imbalance the two best police persons from each country in the world have been banded together to for an elite band of drug busters. This group have now located a 'Narco Processing Centre' and not surprisingly the Narco Police have to go and close it down in Schwarzeneger explosive style.

The game comes with a meagre leaflet of instructions and it is necessary to actually start the game to discover that the rear view of a cop is controlled by the joystick and some real fiddling to work out the various shooting options. There is a long list of menu commands to be entered from the keyboard ranging from one to three letter codes which need inputting during fairly frantic shoot em up scenes. The effect is rather like the original Aliens film with orders from remote control camera officers arriving just too late.

The game interface is strong allowing many variations of tactical set up or a default mode. The weapons choices are logical and if taken to a logical conclusion make for interesting strategical choice. Sadly the leaflet neglects the nut and bolt commands for selection/deselection of weapons and it is left to the player to assume that a mouse button does what is expected.

There were times when this almost felt like a Beta test version of the game with some command modules still to be enacted on the programming. There is little in the way of feedback from the program to tell the user which options are in force and this can lead to a great deal confusion in the game. The use of the various keys is also most ill defined leaving much to imagination and experiment. Unlike the adventure game experimentation whereby one can save and try commands wrong commands here send you back to the beginning in a most unsatisfactory manner.

I was not too impressed with this one, nice idea shame about the implementation.

# THE STOS COLUMN

**W**elcome to another sizzling STOS column! This issue, not only are there two nifty listings for you to type in but there is also a great offer to be taken advantage of! The two programs featured in this issue are WORDSEARCH, a wordsearch game, and DOCVIEW, a document viewer (as you can see, I spent ages working out titles for these programs!). More about the two programs in a moment, but first - the offer!

## LISTINGS DISK

Are you the sort of person who hates typing in long listings? If so, you now have the chance to relieve your aching fingers. For just £2.95 you can obtain a disk containing the past 6 issues STOS column listings (including this issues). These include handy utilities like COMPILER CONFIGURER and JOINER, and enjoyable games such as DICE and ENEMY FLEET. All in all you will get 9 programs, which works out at a cost of around 33 pence each! To get your mitts on this wonderful disk just send a cheque/postal order for £2.95 (made payable to D. GUY) to the usual address (found at the end of this column) and shortly afterwards a suspiciously disk-shaped jiffy bag will be stuffed through your letter box!

***Dion Guy presents two new type-in listings and offers a ready to run disk***

## WORDSEARCH

Now onto the listings. First up is a pretty nifty wordsearch game (even if I do say so myself). After typing it in and running it you will be face to face with the main screen. At the top of the screen are two options, "ENTER WORDS" and "PLAY WORDSEARCH". Firstly, use the mouse to click on "ENTER WORDS". The screen will now change to show the numbers 1 to 20 going down the screen and the word "TITLE" at the top of the screen. You can now type in up to 20 words (max. 10 letters each) that you want to be put in your wordsearch, and you can also give your wordsearch a title (up to 20 letters long). After you have typed each word press RETURN to go onto the next one. You can use the BACKSPACE key if you make a mistake and you can also use the UP/DOWN cursor keys to move up and down the list of words. Once you have finished either press RETURN while on the 20th word or press the ESCAPE key (you can press ESCAPE at any time). If you want to clear all the words to start again press the CLR/HOME key. After you have typed in the words and you are back on the main screen click on "PLAY WORDSEARCH" to start playing. The computer will take a few moments to create the wordsearch in memory and then you will see the wordsearch appear in the left-hand side window and the list of words to find in the right-hand side window. Once you think you have found a word, use the mouse to click on it's first letter (e.g. - if the word was "COMPUTER", you would click on the "C") and then use the keypad keys to highlight the rest of the word. In this game the keypad keys act as direction keys, with 9 being North-east, 1 being South-west, 6 being East, etc. etc. After you have clicked on the first letter of a word press the appropriate keypad key to go in the direction that the word is going. Keep pressing the key until the whole word is highlighted. Then, press the ENTER key and, if the word is correct, the computer will remove the word from the list and you can go on to find the next word. Once you have found all the words, the computer will display how long it took you. You can then create another wordsearch and try to better your time!

## DOCVIEW

The second program this issue is a very handy document viewer. Normally you can't view documents from within STOS but with this program you can load a whole document into memory and scroll up and down it with ease. Upon running, simply use the standard STOS fileselector to choose a document file to view and, after the document has loaded, use the UP/DOWN arrow keys to scroll through it.

## UNTIL NEXT TIME

And so, we reach the end of another STOS column. Remember, if you have any STOS related stuff to contribute to the column just send it to the following address. Bye!

**Dion Guy**
**11 Shore Crescent**
**Bishops Waltham**
**Hants**
**SO3 1DZ**

## Listing 1

## WORDSEARCH

```
10 rem SCREEN + VARIABLE SETUP
20 dim GRID$(60,20),WD$(20),COUNT(23)
30 mode 1 : key off
40 set zone 1,0,0 to 319,10 : set zone 2,320,0 to 639,10
50 windopen 2,64,2,16,22,1 : scroll off : windopen 1,0,2,63,22,2 : scroll off
60 qwindow 0 : curs off : locate 14,0 : print "ENTER WORDS" : locate 53,0 :
print "PLAY WORDSEARCH" : ink 1 : bar 327,0 to 328,10 : draw 0,10 to 639,10 :
show on
70 repeat : Z=zone(0) : M=mouse key
80 if Z=1 and M=1 then hide on : goto 930
90 until Z=2 and M=1 : hide on
100 YES=0 : for C=1 to 20 : if WD$(C)()"" then YES=1
110 next C
120 if YES=0 then hide on : ink 0 : bar 0,0 to 639,9 : home : centre "THERE ARE
NO WORDS PRESENT!" : wait 100 : ink 0 : bar 0,0 to 639,9 : goto 60
130 ink 0 : bar 0,0 to 639,9 : ink 1 : qwindow 0 : curs off : home : centre
"PLEASE WAIT"
140 rem PUT WORDS IN WORDSEARCH
150 for B=1 to 20
160 if WD$(B)="" then goto 400
170 D=rnd(7)+1
180 if D=1 then X=2 : Y=0
190 if D=2 then X=2 : Y=1
200 if D=3 then X=0 : Y=1
210 if D=4 then X=-2 : Y=1
220 if D=5 then X=-2 : Y=0
230 if D=6 then X=-2 : Y=-1
240 if D=7 then X=0 : Y=-1
250 if D=8 then X=2 : Y=-1
260 X2=rnd(58)+1 : Y2=rnd(19)+1
270 X2$=str$(X2) : X3$=right$(X2$,1) : if X3$="0" or X3$="2" or X3$="4" or
X3$="6" or X3$="8" then goto 260
280 if X2+(len(WD$(B))*2))60 and X=2 then goto 260
290 if X2-(len(WD$(B))*2)(0 and X=-2 then goto 260
300 if Y2-len(WD$(B))(0 and Y=-1 then goto 260
310 if Y2+len(WD$(B)))20 and Y=1 then goto 260
320 X3=X2 : Y3=Y2 : for A=1 to len(WD$(B))
330 X2=X2+X : Y2=Y2+Y
340 if GRID$(X2,Y2)()"" then goto 260
350 next A
360 for A=1 to len(WD$(B))
370 X3=X3+X : Y3=Y3+Y
380 GRID$(X3,Y3)=mid$(WD$(B),A,1)
390 next A
400 next B
410 rem DISPLAY WORDS TO FIND
420 qwindow 2 : curs off : for A=1 to 20 : if WD$(A)()"" then locate 1,A-1 :
print WD$(A)
430 if WD$(A)="" then locate 1,A-1 : print string$("-",12)
440 next A
450 if CHK=20 then hide on : qwindow 0 : home : centre "You have completed the
wordsearch! It took you"+str$(timer/50)+" seconds. Press a key." : clear key :
wait key : clear : goto 20
460 if YES2=1 then YES2=0 : qwindow 1 : goto 530
470 rem FILL IN REST OF WORDSEARCH
480 for A=1 to 60 step 2 : for B=1 to 20
490 if GRID$(A,B)="" then X=rnd(25)+97 : GRID$(A,B)=chr$(X)
500 next B : next A
510 rem DISPLAY WORDSEARCH
520 qwindow 1 : curs off : for B=1 to 20 : for A=1 to 60 step 2 : locate A,B-1 :
print GRID$(A,B) : next A : next B
530 ink 0 : bar 0,0 to 639,9 : ink 1 : bar 163,0 to 164,10 : qwindow 0 : home :
print T$ : qwindow 1 : if YES2=1 then goto 570
540 limit mouse 16,24 to 487,183 : x mouse=240 : y mouse=100 : show on
550 if TS=0 then timer=0 : TS=1
560 rem MAIN LOOP
570 repeat : X=(x mouse/8)-1 : Y=(y mouse/8)-3 : M=mouse key : until M=1 and
scrn(X,Y)()32 and point(X*8+8,Y*8+25)=0 : SX=X : SY=Y : SC2=0 : LC=0
580 W$=chr$(scrn(X,Y)) : inverse on : locate X,Y : print W$ : inverse off :
qwindow 0 : locate 22,0 : print "Word : ";W$
590 rem HIGHLIGHT WORD
600 repeat : K$=inkey$ : SC=scancode
610 until SC)102 and SC(112 or SC=114
620 if SC=114 then goto 780
630 if SC2()0 and SC=SC2 then goto 740
640 if SC2()0 then goto 600
650 if SC=103 then J=-2 : K=-1
660 if SC=104 then J=0 : K=-1
670 if SC=105 then J=2 : K=-1
680 if SC=106 then J=-2 : K=0
690 if SC=108 then J=2 : K=0
700 if SC=109 then J=-2 : K=1
710 if SC=110 then J=0 : K=1
720 if SC=111 then J=2 : K=1
730 SC2=SC
740 if X=1 and J(0 or X=59 and J)0 or Y=0 and K(0 or Y=19 and K)0 or LC=11 then
goto 600
750 X=X+J : Y=Y+K
760 if point(X*8+8,Y*8+25)()0 then X=X-J : Y=Y-K : goto 600
770 qwindow 1 : L$=chr$(scrn(X,Y)) : locate X,Y : inverse on : print L$ :
inverse off : qwindow 0 : locate 30+LC,0 : print L$ : inc LC : W$=W$+L$ : goto
600
780 ink 0 : bar 0,0 to 639,9
```

continued ☛

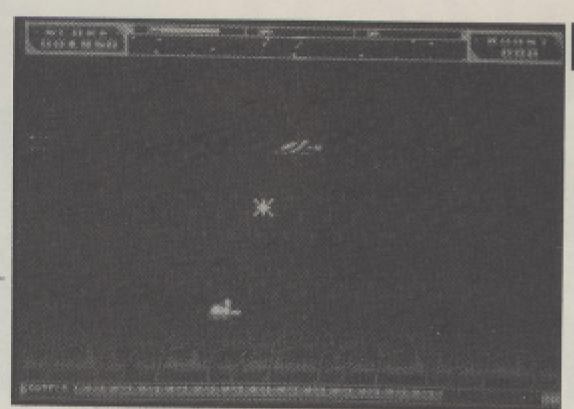
```
790 for A=1 to 20
800 if W$=WD$(A) then qwindow 0 : home : centre "Word found!" :
WD$(A)=string$("-",12) : goto 830
810 next A
820 qwindow 1 : for A=1 to len(W$) : locate SX,SY : print chr$(scrn(SX,SY)) :
SX=SX+J : SY=SY+K : next A : qwindow 0 : home : centre "Word not found." : wait
100 : YES2=1 : goto 530
830 qwindow 1 : for A=1 to len(W$)
840 locate SX,SY : print chr$(scrn(SX,SY)) : ink 1 : bar SX*8+8,SY*8+25 to
SX*8+16,SY*8+31 : ink 0
850 SX=SX+J : SY=SY+K
860 next A
870 wait 100 : YES2=1
880 rem HAVE ALL WORDS BEEN FOUND?
890 CHK=0 : for A=1 to 20 : if WD$(A)="" or left$(WD$(A),1)="-" then inc CHK
900 next A
910 goto 420
920 rem ENTER WORDS
930 cls
940 under on : centre "ENTER WORDS (max 12 letters) & TITLE" : under off :
locate 0,2 : print "Title :" : locate 8,2 : print T$
950 for A=4 to 23 : locate 0,A : print str$(A-3)-chr$(32);"." : locate 4,A :
print WD$(A-3) : next A : curs on
960 L=2 : locate 8+COUNT(L),L
970 repeat
980 K$=inkey$ : SC=scancode
990 if SC=71 then for A=1 to 20 : WD$(A)="" : next A : for A=0 to 23 :
COUNT(A)=0 : next A : T$="" : goto 930
1000 if asc(K$)>31 and asc(K$)<127 and COUNT(L)<20 and L=2 then print K$; : inc
COUNT(L)
1010 if asc(K$)>96 and asc(K$)<123 and COUNT(L)<12 and L>3 then print K$; : inc
COUNT(L)
1020 if SC=14 and COUNT(L)>0 then cleft : print chr$(32); : cleft : dec
COUNT(L)
1030 if (SC=80 or SC=28 or SC=114) and L=2 then L=4 : locate 4+COUNT(L),L :
SC=0
1040 if (SC=80 or SC=28 or SC=114) and L<23 and L>3 then inc L : locate
4+COUNT(L),L : SC=0
1050 if SC=72 and L>4 then dec L : locate 4+COUNT(L),L : SC=0
1060 if SC=72 and L=4 then L=2 : locate 8+COUNT(L),L
1070 if SC=1 then goto 1090
1080 until SC=28 and L=23
1090 for B=1 to 20 : WD$(B)=""
1100 for A=4 to 15
1110 if scrn(A,B+3)<>32 then WD$(B)=WD$(B)+chr$(scrn(A,B+3))
1120 if scrn(A,B+3)=32 then goto 1140
1130 next A
1140 next B
1150 rem TITLE OF WORDSEARCH
1160 T$="" : for A=8 to 27
1170 T$=T$+chr$(scrn(A,2))
1180 next A
1190 if T$=space$(20) then T$="Untitled" : COUNT(2)=8
1200 goto 30
```

## *Listing 2*

**DOCUMENT DISPLAYER**

```
10 on error goto 210
20 mode 1 : key off : click off
30 dim L$(9999) : E=0
40 F$=file select$("*.*","Load text file (DOC,ASC or TXT)",4) : if F$<>"" then
open in #1,F$ else default : end
50 rem LOAD DOCUMENT INTO MEMORY
60 hide on : curs off : locate 0,10 : centre "Loading "+F$ : locate 0,12 :
centre "Please wait" : repeat
70 line input #1,A$
80 L$(E)=A$ : inc E
90 until eof(#1)=-1 : EM=E : D=0 : C=22
100 close #1
110 rem DISPLAY DOCUMENT
120 cls : windopen 2,0,0,80,1,0 : inverse on : centre "Use up and down arrow
keys to scroll through text." : inverse off : windopen 3,0,24,80,1,0 : inverse
on : centre "Press Q to quit program or L to load another file." : inverse off :
windopen 1,0,1,80,23,0 : scroll off : curs off
130 for A=0 to 22 : locate 0,A : print L$(A) : next A
140 K$=inkey$ : SC=scancode
150 if upper$(K$)="Q" then default : end
160 if upper$(K$)="L" then curs on : show on : run
170 rem SCROLL DOCUMENT
180 if SC=80 and C<EM then locate 0,22 : scroll on : scroll up : scroll off :
inc C : inc D : locate 0,22 : print L$(C)
190 if SC=72 and D>0 then home : scroll on : scroll down : scroll off : dec C :
dec D : home : print L$(D)
200 goto 140
210 cls : locate 0,12 : centre "Unable to load file - press a key." : clear key
: wait key : show on : run
```

# ANARCHY



Y ou grasp the joystick firmly in your right hand and prepare for the onslaught of aliens to come. The sweat pours down your face and into your eyes, so you blink it away. Suddenly, the ship gives a violent jolt. Your attention is drawn to the scanner. A mutant closing ... fast! You swerve to the side and just about avoid it. But it realises that it missed so it comes back. In fright, you slam your hand down on the smart bomb button and wait for the fireworks.

A lovely sizzling red hot Psygnosis re-release from 1990 is storming your way in the form of Anarchy - a clone of the game that will be remembered forever - Defender.

The gameplay involves flying around over a parallax scrolling planet to save ten golden pods from the naughty aliens, who want the precious substance within them to transform themselves into mutants. Your weapon is a single beam laser to begin with, but as you kill the aliens they release small pods. Fly over these and you gain extra weapons. The additional firepower available includes Boost, providing rapid firing lasers; Twinshot which gives you double lasers; and Cannon, which results in an outrider floating with your ship and firing with it. It all sounds very unoriginal, doesn't it? - like Defender crossed with the latest arcade shoot 'em ups - but it's very playable indeed.

Graphicswise, it's what you'd expect from Psygnosis. Superb is one word which sums up the whole kaboodle. The scrolling is super smooth, the aliens and your ship are well animated, and the game doesn't slow down however many sprites are on the screen. There are lots of different terrains to fly over, and guardians to defeat which look horribly real, especially The Brain - the first one you meet. Some are quite digusting!

On the sound front the game is average. Not particularly good, but not bad either. There are lots of sound effects, though. The only one I feel is missing is an engine sound. On the title screen there's a sampled tune which is fairly impressive, but not the best you've ever heard.

Overall, I found Anarchy great fun. It's highly polished in presentation and plays superbly.

### FACTS

| | |
|---|---|
| Title: | ANARCHY |
| Publisher: | Sizzlers (Psygnosis) |
| Price: | £7.99 |
| Reviewer: | Peter Davison |

### SIGHT & SOUND

*The sound could be improved, although what's there is just about adequate, graphics are super*

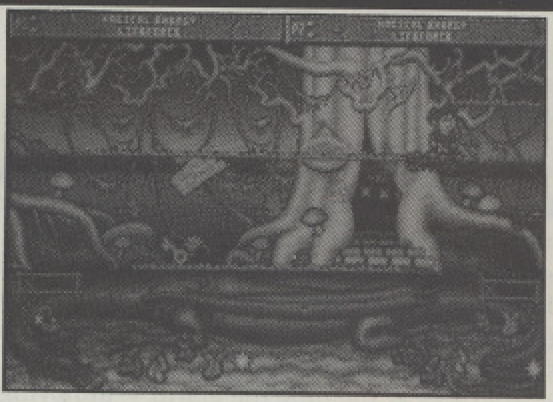
### GAMEPLAY

*Very good, incredibly playable*

### VERDICT

*Wonderful! If you missed it first time around, it's a bargain as a budget re-release*

# SPELLBOUND



### FACTS

| | |
|---|---|
| Title: | SPELLBOUND |
| Publisher: | Sizzlers (Psygnosis) |
| Price: | £7.99 |
| Reviewer: | Peter Davison |

### SIGHT & SOUND

*Graphics are quite spectacular, but unfortunately the sounds don't quite live up to the same standards*

### GAMEPLAY

*Not very good at all*

### VERDICT

*Sadly not one of Psygnosis' best games*

J ust as you were about to advance a grade in the School of Magic, your tutor goes and gets himself kidnapped. You have to rescue him or you'll never graduate.

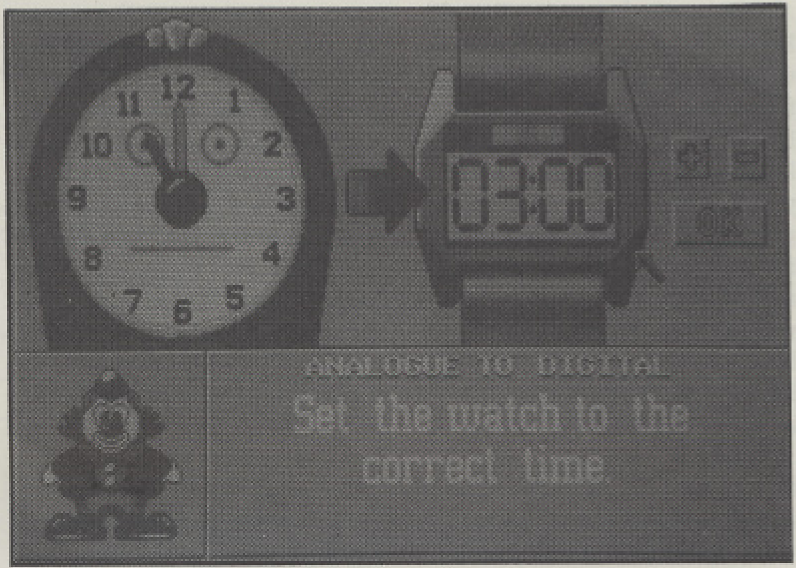
Spellbound is a re-release of a fairly recent Psygnosis 1 or 2 player arcade adventure. Those of you who own an 8-bit may remember Spellbound as a superb adventure game involving the 'magic knight' on a quest to save all his friends. This game is nothing like it. It's a platform game with lots of shooting and collecting objects to remove obstacles, not exactly the most original of concepts, nor indeed storyline.

The gameplay may entertain you for about half an hour or so, but then you'll discover its true colours - a sort of grey in gameplay standards. Basically, what you must do is roam around the various zones shooting everything and collecting bombs to blow up walls and gems to destroy energy fields. You may wonder why I don't think the game is very good and the main reason is that the whole game is far too difficult for the average games player. Another is that once you get the hang of the game, you may be given a password for the second level but don't try typing it in on the startup screen - it doesn't work! I set off with high hopes for the game, but as I progressed they fell rapidly. Not even the two player option makes much difference.

The standard of the graphics throughout the game is very good. The backgrounds, sprites, and foregrounds are all drawn with incredible attention to detail. The elf that you control even lands on his backside and rubs his head if he falls too far! The backgrounds to the various levels look superb, and the foregrounds are detailed and shaded, giving them a very slick appearance. Unfortunately, it's very easy to see past the flash graphics into a dull game.

Soundwise, the game isn't so good. There are no sampled sounds (very unusual from Psygnosis) and there's no music on the title page. The sounds are very sparsely dotted around, and aren't particularly spectacular, mainly consisting of Pukchtoof! and Ping! noises.

# WHAT'S THE TIME?




In Issue 53 I reviewed a couple of good quality budget priced educational programs from Rainbow called First Letters and Shapes and Colours. These have now been joined by another called Telling the Time.

It's supplied in the same colourful packaging as its predecessors, and like them comes on one double sided disk accompanied by a simple instruction sheet. Again like the earlier programs it uses Bobby the Clown as a theme character, and as expected he appears frequently throughout the program to encourage your endeavours.

On bootup the program presents you with a colourful graphical menu screen, from which the program's five main functions can be chosen. These are - Analogue, Digital, Analogue to Digital, Digital to Analogue, and Alarm Clock. Each teaches a skill and gives practice in the logic of telling the time in different ways.

***ANALOGUE*** - teaches telling the time using an analogue clock (for any non-techies out there - that's one with hands!). It has three difficulty levels, namely: hours only, for example four o'clock; quarter hour intervals, e.g. quarter past seven; and finally the five minute intervals, e.g. twenty five past six. Each level is subdivided into two sections each presenting you with five questions. In the first section the clock hands move to a specific time and you then select the correct time from a list of possible answers, using the cursor/return keys or the mouse. In section two you have to move the clock's hands to the time requested, again using keyboard or mouse.

***DIGITAL*** - this is identical in concept to Analogue, but uses a digital watchface instead. It also has an option to use 12 or 24 hour clock, the latter adding to the difficulty.

***ANALOGUE TO DIGITAL*** - helps you learn to convert times shown by an analogue clock into digital clock form. You have to read the analogue clock face then set the digits on the watch to the equivalent time. Again there are three levels, with 12 or 24 hour format to increase the difficulty further. In 24 hour mode an AM or PM flag is shown on the analogue clockface as appropriate.

***DIGITAL TO ANALOGUE*** - as above, but in reverse. You read the digital watchface and move the hands of the analogue clock to the equivalent time.

***ALARM CLOCK*** - allows you to set the alarm hand on Bobby's analogue alarm clock to remind him when to do various things, such as wake up, go shopping, eat his dinner, and go to bed. The clock hands then move round rapidly and the bell rings at the time the alarm was set.

There's also a Level/Play Again screen reached by pressing the ESC key. This allows you to change level, start again, set 12/24 hour mode, or exit.

## REWARDS

Answer a problem correctly and you'll receive a big "thumbs up" from Bobby, a short burst of music, some amusing animation of the clock or watchface, and a "Well Done!" message onscreen. Incorrect answers earn a gunshot sound and an invitation to try again. There are no hints given after several incorrect attempts, nor is the correct answer ever given. You're expected to keep trying until you get it right. Complete a level and you're treated to an animated reward sequence involving Bobby. There only seem to be three different sequences, so this could get a bit boring after a while.

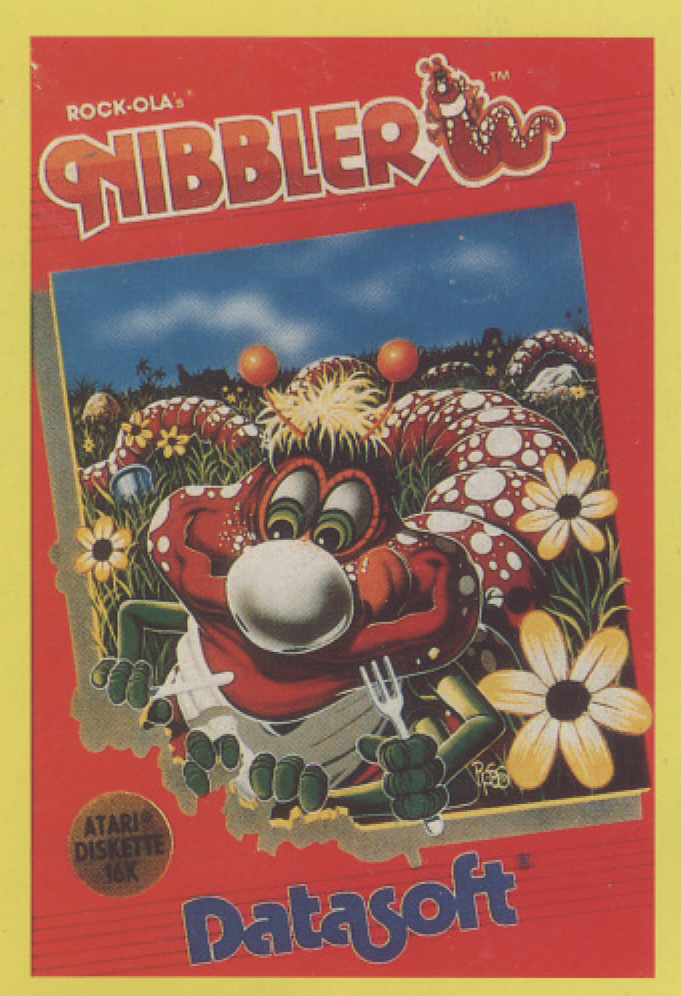
Visual quality is very good, using big, colourful, well drawn graphics. The analogue clock is particularly attractive - its face smiles at you when you answer correctly. Animation is adequate for this type of program, although the programmers do seem to have taken a few shortcuts. Sound is handled well too, although rather sparse. The end of level reward sequences take place in complete silence and really could do with a little musical accompaniment to liven them up.

## CRITICISMS

Criticisms? Well yes, there are a few. I think the program could be made more helpful by providing a hint or giving the correct answer after several incorrect attempts. Also, some form of supplementary marking of the analogue clockface should be provided to help clarify the concept of five minute and quarter hour intervals, and "past" and "to". One annoying point is that the analogue clock's hour hand only ever points directly to the numerals, which could be confusing. Unlike a real clock it's never seen between two numbers. B.Ware Software got it right with their Master Time program (see review in Issue 50), which is designed to do exactly the same job as Telling the Time. However, Master Time is a lot more expensive, so I guess you get what you pay for.

Overall, I liked Telling the Time. Despite the criticisms it should still be capable of helping you teach your children this important skill. And at £7.99 it represents good value for money.

**TELLING THE TIME**
**Rainbow Educational Software**
**Price £7.99**
**Reviewed by John S Davison**




# FREE

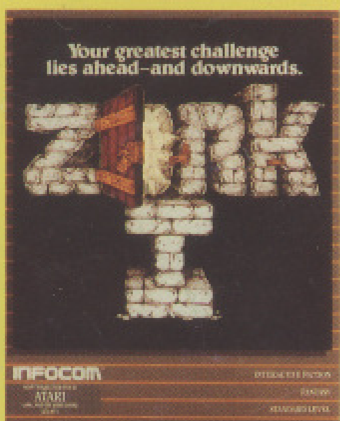
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## ZORK I

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Now anyone can learn to type whilst playing a challenging game. Mastertype was one of the original 'game based' typing tutors which requires you to zap enemy words as they approach from the four corners of the screen. But it not really a game for, before you realise it, you will become quite proficient on the keyboard as you progress through 18 lessons of increasing complexity.

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**OUR PRICE £2.95**

# SUPER SPECIALS

## MAXWELLS DEMON

Check out the review in Issue 49. Paul Rixon found this simple game to be quite addictive and at this price can you afford not to become addicted! It's a different type of game, more in the Tetris mould than an arcade game. It sure makes you think and the price won't break you if you don't get fully hooked.

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